



NASA SP-7039(13)

Section 2

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JULY 1978

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

ACCESSION NUMBER RANGES

<i>Bibliography Number</i>	<i>STAR Accession Numbers</i>
NASA SP-7039(04)	N69-20701–N73-33931
NASA SP-7039(12)	N74-10001–N77-34042
NASA SP-7039(13)	N78-10001–N78-22018

NASA SP-7039(13)

**Section 2
Indexes**

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**PATENT
ABSTRACTS
BIBLIOGRAPHY**

A CONTINUING BIBLIOGRAPHY

Section 2 • Indexes

Indexes for the annotated references to NASA-owned inventions covered by U.S. patents and applications for patent that were announced in *Scientific and Technical Aerospace Reports (STAR)* between May 1969 and June 1978 This issue supersedes all previous Index Sections.



Scientific and Technical Information Office
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

JULY 1978
Washington, D C

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INTRODUCTION

Several thousand inventions result each year from the aeronautical and space research supported by the National Aeronautics and Space Administration. The inventions having important use in government programs or significant commercial potential are usually patented by NASA. These inventions cover practically all fields of technology and include many that have useful and valuable commercial application.

NASA inventions best serve the interests of the United States when their benefits are available to the public. In many instances, the granting of nonexclusive or exclusive licenses for the practice of these inventions may assist in the accomplishment of this objective. This bibliography is published as a service to companies, firms, and individuals seeking new, licensable products for the commercial market.

The *NASA Patent Abstracts Bibliography (NASA PAB)* is a semiannual NASA publication containing comprehensive abstracts and indexes of NASA-owned inventions covered by U.S. patents and applications for patent. The citations included in *NASA PAB* were originally published in NASA's *Scientific and Technical Aerospace Reports (STAR)* and cover *STAR* announcements made since May 1969.

For the convenience of the user, each issue of *NASA PAB* has a separately bound Abstract Section (Section 1) and Index Section (Section 2). Although each Abstract Section covers only the indicated six-month period, the Index Section is cumulative covering all NASA-owned inventions announced in *STAR* since May 1969. Thus a complete set of *NASA PAB* would consist of the Abstract Sections of Issue 04 (January 1974) and Issue 12 (January 1978) and the Abstract and Index Sections for this issue.

The 161 citations published in this issue of the Abstract Section cover the period January 1978 through June 1978. The Index Section contains references to the 3386 citations covering the period May 1969 through June 1978.

ABSTRACT SECTION (SECTION 1)

This *PAB* issue incorporates the 1975 *STAR* category revisions which include 10 major subdivisions divided into 74 specific categories and one general category/division. (See Table of Contents for the scope note of each category under which are grouped appropriate NASA inventions.) This new scheme was devised in lieu of the 34 category divisions which were utilized in *PAB* supplements (01) through (06) covering *STAR* abstracts from May 1969 through January 1974. Each entry in the Abstract Section consists of a *STAR* citation accompanied by an abstract and a key illustration taken from the patent or application for patent drawing. Entries are arranged in subject category in order of the ascending NASA Accession Number originally assigned in *STAR* to the invention. The range of NASA Accession Numbers within each issue is printed on the inside front cover.

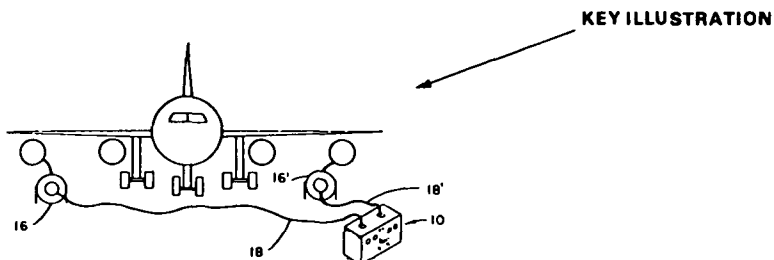
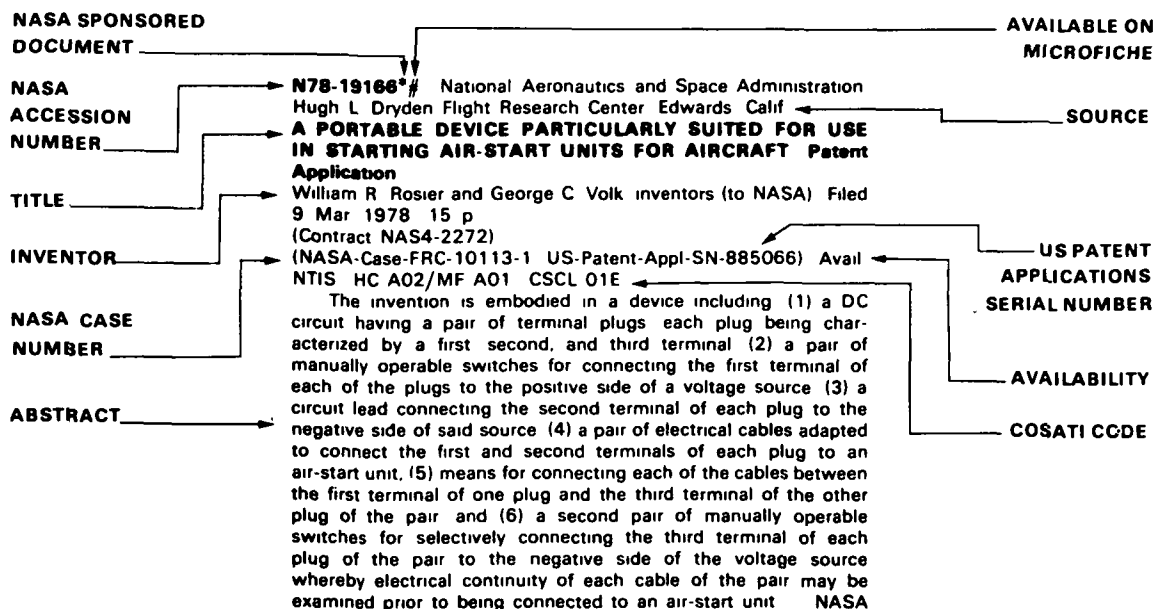
Abstract Citation Data Elements Each of the abstract citations has several data elements useful for identification and indexing purposes, as follows:

NASA Accession Number
NASA Case Number
Inventor's Name

Title of Invention
 U S Patent Application Serial Number
 U S Patent Number (for issued patents only)
 U S Patent Office Classification Number(s)
 (for issued patents only)

These data elements in the citation of the abstract as depicted in the Typical Citation and Abstract reproduced below and are also used in the several indexes

TYPICAL CITATION AND ABSTRACT



INDEX SECTION (SECTION 2)

The Index Section is divided into five indexes which are cross-indexed and are useful in locating a single invention or groups of inventions

Each of the five indexes utilizes basic data elements (1) Subject Category Number, (2) NASA Accession Number, and (3) NASA Case Number, in addition to other specific index terms

Subject Index: Lists all inventions according to appropriate alphabetized technical term and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number

Inventor Index: Lists all inventions according to alphabetized names of inventors and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number

Source Index: Lists all inventions according to alphabetized source of invention (i.e., name of contractor or government installation where invention was made) and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number

Number Index: Lists inventions in order of ascending (1) NASA Case Number, (2) U S Patent Application Serial Number, (3) U S Patent Classification Number, and (4) U S Patent Number and indicates the related Subject Category Number and the NASA Accession Number

Accession Number Index: Lists all inventions in order of ascending NASA Accession Number and indicates the related Subject Category Number, the NASA Case Number, the U S Patent Application Serial Number, the U S Patent Classification Number, and the U S Patent Number

HOW TO USE THIS PUBLICATION TO IDENTIFY NASA INVENTIONS

To identify one or more NASA inventions within a specific technical field or subject, several techniques are possible when using the flexibility incorporated into the *NASA PAB*

(1) *Using Subject Category* To identify all NASA inventions in any one of the subject categories in this issue of *NASA PAB*, select the desired Subject Category in the Abstract Section (Section 1) and find the inventions abstracted thereunder

(2) *Using Subject Index* To identify all NASA inventions listed under a desired technical subject index term, (A) turn to the cumulative Subject Index in the Index Section and find the invention(s) listed under the desired technical subject term (B) Note the indicated Accession Number and the Subject Category Number (C) Using the indicated Accession Number, turn to the inside front cover of the Index Section to determine which issue of the Abstract Section includes the Accession Number desired (D) To find the abstract of the particular invention in the issue of the Abstract Section selected, (i) use the Subject Category Number to locate the Subject Category and (ii) use the Accession Number to locate the desired invention within the Subject Category listing

(3) *Using Patent Classification Index* To identify all inventions covered by issued NASA patents (does not include applications for patent) within a desired Patent Office Classification, (A) turn to the Patent Classification Number in the Number Index of Section 2 and find the associated inventions(s), and (B) follow the instructions outlined in (2)(B), and (D) above

PUBLIC AVAILABILITY OF COPIES OF PATENTS AND PATENT APPLICATIONS

Copies of U S patents may be purchased directly from the U S Patent Office, Washington, D C 20231, for fifty cents a copy When ordering patents, the U S Patent Number should be used, and payment must be remitted in advance, preferably by money order or check payable to the Commissioner of Patents Prepaid purchase coupons for ordering are also available from the Patent Office

NASA *patent application specifications* are sold in paper copy by the National Technical Information Service at price code AO2 (\$4 00 domestic, \$8 00 foreign) Microfiche are sold at price code AO1 (\$3 00 domestic, \$4 50 foreign) The US-Patent-Appl-SN-number should be used in ordering either paper copy or microfiche from NTIS

LICENSES FOR COMMERCIAL USE: INQUIRIES AND APPLICATIONS FOR LICENSE

NASA inventions, abstracted in *NASA PAB*, are available for nonexclusive or exclusive licensing in accordance with the NASA Patent Licensing Regulations It is significant that all licenses for NASA inventions shall be by express written instruments and that no license will be granted or implied in a NASA invention except as provided in the NASA Patent Licensing Regulations

Inquiries concerning the NASA Patent Licensing Program or the availability of licenses for the commercial use of NASA-owned inventions covered by U S patents or pending applications for patent should be forwarded to the NASA Patent Counsel of the NASA installation having cognizance of the specific invention, or the Assistant General Counsel for Patent Matters, Code GP-4, National Aeronautics and Space Administration, Washington, D C 20546 Inquiries should refer to the NASA Case Number, the Title of the Invention, and the U S Patent Number or the U S Application Serial Number assigned to the invention as shown in *NASA PAB*

The NASA Patent Counsel having cognizance of the invention is determined by the first three letters or prefix of the NASA Case Number assigned to the invention The addresses of NASA Patent Counsels are listed alongside the NASA Case Number prefix letters in the following table Formal application of license must be submitted on the NASA Form, Application for NASA Patent License, which is available upon request from any NASA Patent Counsel

**NASA Case
Number
Prefix Letters**

**Address of Cognizant
NASA Patent Counsel**

ARC-xxxxx
XAR-xxxxx

Ames Research Center
Mail Code 200-11A
Moffett Field, California 94035
Telephone (415)965-5104

ERC-xxxxx
XER-xxxxx
HQN-xxxxx
XHQ-xxxxx

NASA Headquarters
Mail Code GP-4
Washington, D C 20546
Telephone (202)755-3954

GSC-xxxxx
XGS-xxxxx

Goddard Space Flight Center
Mail Code 204
Greenbelt, Maryland 20771
Telephone (301)982-2351

KSC-xxxxx
XKS-xxxxx

John F Kennedy Space Center
Mail Code AA-PAT
Kennedy Space Center, Florida 32899
Telephone (305)867-2544

LAR-xxxxx
XLA-xxxxx

Langley Research Center
Mail Code 456
Langley Station
Hampton, Virginia 23365
Telephone (804)827-3725

LEW-xxxxx
XLE-xxxxx

Lewis Research Center
Mail Code 500-311
21000 Brookpark Road
Cleveland, Ohio 44135
Telephone (216)433-6346

MSC-xxxxx
XMS-xxxxx

Lyndon B Johnson Space Center
Mail Code AM
Houston, Texas 77058
Telephone (713)483-4871

MFS-xxxxx
XMF-xxxxx

George C Marshall Space Flight
Center
Mail Code CC01
Huntsville, Alabama 35812
Telephone (205)453-0020

NPO-xxxxx
XNP-xxxxx
FRC-xxxxx
XFR-xxxxx
WOO-xxxxx

NASA Resident Legal Office
Mail Code 180-601
4800 Oak Grove Drive
Pasadena, California 91103
Telephone (213)354-2700

PATENT LICENSING REGULATIONS

Title 14—AERONAUTICS AND SPACE

Chapter V—National Aeronautics and Space Administration

PART 1245—PATENTS

Subpart 2—Patent Licensing Regulations

1. Subpart 2 is revised in its entirety as follows:

Sec.	
1245.200	Scope of subpart.
1245.201	Definitions.
1245.202	Basic considerations
1245.203	Licenses for practical application of inventions.
1245.204	Other licenses.
1245.205	Publication of NASA inventions available for license.
1245.206	Application for nonexclusive license.
1245.207	Application for exclusive license.
1245.208	Processing applications for license.
1245.209	Royalties and fees.
1245.210	Reports
1245.211	Revocation of licenses.
1245.212	Appeals
1245.213	Litigation.
1245.214	Address of communications.

AUTHORITY The provisions of this Subpart 2 issued under 42 U.S.C. 2457, 2473(b)(3).

§ 1245.200 Scope of subpart.

This Subpart 2 prescribes the terms, conditions, and procedures for licensing inventions covered by U.S. patents and patent applications for which the Administrator of the National Aeronautics and Space Administration holds title on behalf of the United States.

§ 1245.201 Definitions.

For the purpose of this subpart, the following definitions apply:

(a) "Invention" means an invention covered by a U.S. patent or patent application for which the Administrator of NASA holds title on behalf of the United States and which is designated by the Administration as appropriate for the grant of license(s) in accordance with this subpart.

(b) "To practice an invention" means to make or have made, use or have used, sell or have sold, or otherwise dispose of according to law any machine, article of manufacture or composition of matter physically embodying the invention, or to use or have used the process or method comprising the invention.

(c) "Practical application" means the manufacture in the case of a composition of matter or product, the use in the case of a process, or the operation in the case of a machine, under such conditions as to establish that the invention is being utilized and that its benefits are reasonably accessible to the public.

(d) "Special invention" means any invention designated by the NASA Assistant General Counsel for Patent Matters to be subject to short-form licensing procedures. An invention may be designated as a special invention when a determination is made that:

(1) Practical application has occurred and is likely to continue for the life of

the patent and for which an exclusive license is not in force, or

(2) The public interest would be served by the expeditious granting of a nonexclusive license for practice of the invention by the public

(e) The "Administrator" means the Administrator of the National Aeronautics and Space Administration, or his designee.

(f) "Government" means the Government of the United States of America.

(g) The "Inventions and Contributions Board" means the NASA Inventions and Contributions Board established by the Administrator of NASA within the Administration in accordance with section 305 of the National Aeronautics and Space Act of 1958 as amended (42 USC 2457).

§ 1245.202 Basic considerations.

(a) Much of the new technology resulting from NASA sponsored research and development in aeronautical and space activities has application in other fields. NASA has special authority and responsibility under the National Aeronautics and Space Act of 1958, as amended (42 USC 2451), to provide for the widest practical dissemination and utilization of this new technology. In addition, NASA has been given unique requirements to protect the inventions resulting from NASA activities and to promulgate licensing regulations to encourage commercial use of these inventions.

(b) NASA-owned inventions will best serve the interests of the United States when they are brought to practical application in the shortest time possible. Although NASA encourages the non-exclusive licensing of its inventions to promote competition and achieve their widest possible utilization, the commercial development of certain inventions calls for a substantial capital investment which private manufacturers may be unwilling to risk under a nonexclusive license. It is the policy of NASA to seek exclusive licensees when such licenses will provide the necessary incentive to the licensee to achieve early practical application of the invention.

(c) The Administrator, in determining whether to grant an exclusive license, will evaluate all relevant information submitted by applicants and all other persons and will consider the necessity for further technical and market development of the invention, the capabilities of prospective licensees, their proposed plans to undertake the required investment and development, the impact on competitors, and the benefits of the license to the Government and to the public. Preference for exclusive license shall be given to U.S. citizens or companies who intend to manufacture or use, in the case of a process, the invention in the United States of America, its territories and possessions. Consideration may also be given to assisting small businesses and minority business enterprises, as well as economically depressed, low income and labor surplus areas.

(d) All licenses for inventions shall

be by express written instruments. No license shall be granted either expressly or by implication, for a NASA invention except as provided for in §§ 1245.203 and 1245.204 and in any existing or future treaty or agreement between the United States and any foreign government.

(e) Licenses for inventions covered by NASA-owned foreign patents and patent applications shall be granted in accordance with the NASA Foreign Patent Licensing Regulations (§ 1245.4).

§ 1245.203 Licenses for practical application of inventions.

(a) *General.* As an incentive to encourage practical application of inventions, licenses will be granted to responsible applicants according to the circumstances and conditions set forth in this section

(b) *Nonexclusive licenses* (1) Each invention will be made available to responsible applicants for nonexclusive, revocable licensing in accordance with § 1245.206, consistent with the provisions of any existing exclusive license.

(2) The duration of the license shall be for a period as specified in the license.

(3) The license shall require the licensee to achieve the practical application of the invention and to then practice the invention for the duration of the license

(4) The license may be granted for all or less than all fields of use of the invention and throughout the United States of America, its territories and possessions, Puerto Rico, and the District of Columbia, or in any lesser geographic portion thereof.

(5) The license shall extend to the subsidiaries and affiliates of the licensee and shall be nonassignable without approval of the Administrator, NASA, except to the successor of that part of the licensee's business to which the invention pertains.

(c) *Short-form nonexclusive licenses.*

A nonexclusive, revocable license for a special invention, as defined in § 1245.201 (d), shall be granted upon written request, to any applicant by the Patent Counsel of the NASA installation having cognizance of the invention.

(d) *Exclusive licenses.* (1) A limited exclusive license may be granted on an invention available for such licensing provided that:

(i) The Administrator has determined that: (a) The invention has not been brought to practical application by a nonexclusive licensee in the fields of use or in the geographical locations covered by the application for the exclusive license, (b) practical application of the invention in the fields of use or geographical locations covered by the application for the exclusive license is not likely to be achieved expeditiously by the further funding of the invention by the Government or under a nonexclusive license requested by any applicant pursuant to these regulations, and (c) the exclusive license will provide the necessary incentive to the licensee to achieve the practical application of the invention; and

(ii) Either a notice pursuant to

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§ 1245.205 listing the invention as available for licensing has been published in the FEDERAL REGISTER for at least 9 months, or a patent covering the invention has been issued for at least 6 months. However, a limited exclusive license may be granted prior to the periods specified above if the Administrator determines that the public interest will best be served by the earlier grant of an exclusive license.

(2) The license may be granted for all or less than all fields of use of the invention, and throughout the United States of America, its territories and possessions, Puerto Rico, and the District of Columbia, or in any lesser geographic portion thereof.

(3) The exclusive period of the license shall be negotiated, but shall be for less than the terminal portion of the patent, and shall be related to the period necessary to provide a reasonable incentive to invest the necessary risk capital.

(4) The license shall require the licensee to practice the invention within a period specified in the license and then to achieve practical application of the invention.

(5) The license shall require the licensee to expend a specified minimum sum of money and/or to take other specified actions, within indicated period(s) after the effective date of the license, in an effort to achieve practical application of the invention.

(6) The license shall be subject to at least an irrevocable royalty-free right of the Government of the United States to practice and have practiced the invention throughout the world by or on behalf of the Government of the United States and on behalf of any foreign government pursuant to any existing or future treaty or agreement with the United States.

(7) The license may reserve to the Administrator, NASA, under the following circumstances, the right to require the granting of a sublicense to responsible applicant(s) on terms that are considered reasonable by the Administrator, taking into consideration the current royalty rates under similar patents and other pertinent facts: (i) To the extent that the invention is required for public use by Government regulation, or (ii) as may be necessary to fulfill health or safety needs, or (iii) for other purposes stipulated in the license.

(8) The license shall be nontransferable except to the successor of that part of the licensee's business to which the invention pertains.

(9) Subject to the approval of the Administrator, the licensee may grant sublicenses under the license. Each sublicense granted by an exclusive licensee shall make reference to and shall provide that the sublicense is subject to the terms of the exclusive license including the rights retained by the Government under the exclusive license. A copy of each sublicense shall be furnished to the Administrator.

(10) The license may be subject to such other reservations as may be in the public interest.

§ 1245.204 Other licenses.

(a) *License to contractor.* There is

hereby granted to the contractor reporting an invention made in the performance of work under a contract of NASA in the manner specified in section 305(a)

(1) or (2) of the National Aeronautics and Space Act of 1958 as amended (42 U.S.C. 2457(a) (1) or (2)), a revocable, nonexclusive, royalty-free license for the practice of such invention, together with the right to grant sublicenses of the same scope to the extent the contractor was legally obligated to do so at the time the contract was awarded. Such license and right is nontransferable except to the successor of that part of the contractor's business to which the invention pertains.

(b) *Miscellaneous licenses.* Subject to any outstanding licenses, nothing in this subpart 2 shall preclude the Administrator from granting other licenses for inventions, when he determines that do so would provide for an equitable distribution of rights. The following exemplify circumstances wherein such licenses may be granted.

(1) In consideration of the settlement of an interference;

(2) In consideration of a release of a claim of infringement; or

(3) In exchange for or as part of the consideration for a license under adversely held patent(s).

§ 1245.205 Publication of NASA inventions available for license.

(a) A notice will be periodically published in the FEDERAL REGISTER listing inventions available for licensing. Abstracts of the inventions will also be published in the NASA Scientific and Technical Aerospace Reports (STAR) and other NASA publications.

(b) Copies of pending patent applications for inventions abstracted in STAR may be purchased from the National Technical Information Service, Springfield, Va. 22151.

§ 1245.206 Application for nonexclusive license.

(a) *Submission of application.* An application for nonexclusive license under § 1245.203(b) or a short-form nonexclusive license for special inventions under § 1245.203(c) shall be addressed to the NASA Patent Counsel of the NASA installation having cognizance over the NASA invention for which a license is desired or to the NASA Assistant General Counsel for Patent Matters.

(b) *Contents of an application for nonexclusive license.* An application for nonexclusive license under § 1245.203(b) shall include:

(1) Identification of invention for which license is desired, including the NASA patent case number, patent application serial number of patent number, title and date, if known;

(2) Name and address of the person, company or organization applying for license and whether the applicant is a U.S. citizen or a U.S. corporation;

(3) Name and address of representative of applicant to whom correspondence should be sent;

(4) Nature and type of applicant's business,

(5) Number of employees,

(6) Purpose for which license is desired;

(7) A statement that contains the applicant's best knowledge of the extent to which the invention is being practiced by private industry and the Government;

(8) A description of applicant's capability and plan to undertake the development and marketing required to achieve the practical application of the invention, including the geographical location where the applicant plans to manufacture or use, in the case of a process, the invention; and

(9) A statement indicating the minimum term of years the applicant desires to be licensed.

(c) *Contents of an application for a short-form nonexclusive license.* An application for a short-form nonexclusive license under § 1245.203(c) for a special invention shall include:

(1) Identification of invention for which license is desired, including the NASA patent case number, patent application serial number or patent number, title and date, if known;

(2) Name and address of company or organization applying for license; and

(3) Name and address of representative of applicant to whom correspondence should be sent.

§ 1245.207 Application for exclusive license.

(a) *Submission of application.* An application for exclusive license under § 1245.203(d) may be submitted to NASA at any time. An application for exclusive license shall be addressed to the NASA Assistant General Counsel for Patent Matters.

(b) *Contents of an application for exclusive license.* In addition to the requirements set forth in § 1245.206(b), the application for an exclusive license shall include:

(1) Applicant's status, if any, in any one or more of the following categories:

(i) Small business firm;

(ii) Minority business enterprise;

(iii) Location in a surplus labor area;

(iv) Location in a low-income urban area; and

(v) Location in an area designed by the Government as economically depressed.

(2) A statement indicating the time, expenditure, and other acts which the applicant considers necessary to achieve practical application of the invention, and the applicant's offer to invest that sum and to perform such acts if the license is granted;

(3) A statement whether the applicant would be willing to accept a license for all or less than all fields of use of the invention throughout the United States of America, its territories and possessions, Puerto Rico, and the District of Columbia, or in any lesser geographic portion thereof.

(4) A statement indicating the amount of royalty fees or other consideration, if any, the applicant would be willing to pay the Government for the exclusive license, and

(5) Any other facts which the applicant believes to show it to be in the interests of the United States of America for the Administrator to grant an exclusive license rather than a nonexclusive li-

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cense and that such an exclusive license should be granted to the applicant.

§ 1245.208 Processing applications for license.

(a) *Initial review* Applications for nonexclusive and exclusive licenses under §§ 1245.206 and 1245.207 will be reviewed by the Patent Counsel of the NASA installation having cognizance for the invention and the NASA Assistant General Counsel for Patent Matters, to determine the conformity and appropriateness of the application for license and the availability of the specific invention for the license requested. The Assistant General Counsel for Patent Matters will forward all applications for license conforming to §§ 1245.206(b) and 1245.207(b) to the NASA Inventions and Contributions Board when the invention is available for consideration of the requested license. Prior to forwarding applications for exclusive licenses to the Inventions and Contributions Board, notice in writing will be given to each nonexclusive licensee for the specific invention advising of the receipt of the application for the exclusive license and providing each nonexclusive licensee with a 30-day period for submitting either evidence that practical application of the invention has occurred or is about to occur or, an application for an exclusive license for the invention.

(b) *Recommendations of Inventions and Contributions Board.* The Inventions and Contributions Board shall, in accordance with the basic considerations set forth in §§ 1245.202 and 1245.203, evaluate all applications for license forwarded by the Assistant General Counsel for Patent Matters. Based upon the facts presented to the Inventions and Contributions Board in the application and any other facts in its possession, the Inventions and Contributions Board shall recommend to the Administrator: (1) Whether a nonexclusive or exclusive license should be granted, (2) the identity of the licensee, and (3) any special terms or conditions of the license.

(c) *Determination of Administrator and grant of nonexclusive licenses* The Administrator shall review the recommendations of the Inventions and Contributions Board and shall determine whether to grant the nonexclusive license as recommended by the Board. If the Administrator determines to grant the license, the license will be granted upon the negotiation of the appropriate terms and conditions of the Office of General Counsel.

(d) *Determination of Administrator and grant of exclusive licenses—(1) Notice.* If the Administrator determines that the best interest of the United States will be served by the granting of an exclusive license in accordance with the basic considerations set forth in §§ 1245.202 and 1245.203, a notice shall be published in the FEDERAL REGISTER announcing the intent to grant the exclusive license, the identification of the invention, special terms or conditions of the proposed license, and a statement that NASA will grant the exclusive license unless within 30 days of the publication of such notice the Inventions and Contributions Board receives in writing

any of the following together with supporting documentation

(i) A statement from any person setting forth reasons why it would not be in the best interest of the United States to grant the proposed exclusive license, or

(ii) An application for a nonexclusive license under such invention, in accordance with § 1245.206(b), in which applicant states that he has already brought or is likely to bring the invention to practical application within a reasonable period.

The Inventions and Contributions Board shall, upon receipt of a written request within the 30 days' notice period, grant an extension of 30 days for the submission of the documents designated above

(2) *Recommendation of Inventions and Contributions Board* Upon the expiration of the period required by subparagraph (1) of this paragraph, the Board shall review all written responses to the notice and shall then recommend to the Administrator whether to grant the exclusive license as the Board initially recommended or whether a different form of license, if any, should instead be granted.

(3) *Grant of exclusive licenses.* The Administrator shall review the Board's recommendation and shall determine if the interest of the United States would best be served by the grant of an exclusive license as recommended by the Board. If the Administrator determines to grant the exclusive license, the license will be granted upon the negotiation of the appropriate terms and conditions by the Office of General Counsel.

§ 1245.209 Royalties and fees.

(a) Normally, a nonexclusive license for the practical application of an invention granted to a U.S. citizen or company will not require the payment of royalties; however, NASA may require other consideration.

(b) An exclusive license for an invention may require the payment of royalties, fees or other consideration when the licensing circumstances and the basic considerations in § 1245.202, considered together, indicate that it is in the public interest to do so.

§ 1245.210 Reports.

A license shall require the licensee to submit periodic reports of his efforts to work the invention. The reports shall contain information within his knowledge, or which he may acquire under normal business practice, pertaining to the commercial use that is being made of the invention and such other information which the Administrator may determine pertinent to the licensing program and which is specified in the license.

§ 1245.211 Revocation of licenses.

(a) Any license granted pursuant to § 1245.203 may be revoked, either in part or in its entirety, by the Administrator if in his opinion the licensee at any time shall fail to use adequate efforts to bring to or achieve practical application of the invention in accordance with the terms of the license, or if the licensee at any

time shall default in making any report required by the license, or shall make any false report, or shall commit any breach of any covenant or agreement therein contained, and shall fail to remedy any such default, false report, or breach within 30 days after written notice, or if the patent is deemed unenforceable either by the Attorney General or a final decision of a U.S. court.

(b) Any license granted pursuant to § 1245.204(a) may be revoked, either in part or in its entirety, by the Administrator if in his opinion such revocation is necessary to achieve the earliest practical application of the invention pursuant to an application for exclusive license submitted in accordance with § 1245.207, or the licensee at any time shall breach any covenant or agreement contained in the license, and shall fail to remedy any such breach within 30 days after written notice thereof.

(c) Before revoking any license granted pursuant to this Subpart 2 for any cause, there will be furnished to the licensee a written notice of intention to revoke the license, and the licensee will be allowed 30 days after such notice in which to appeal and request a hearing before the Inventions and Contributions Board on the question of revocation. After a hearing, the Inventions and Contributions Board shall transmit to the Administrator the record of proceedings, its findings of fact, and its recommendation whether the license should be revoked either in part or in its entirety. The Administrator shall review the recommendation of the Board and determine whether to revoke the license in part or in its entirety. Revocation of a license shall include revocation of all sublicenses which have been granted.

§ 1245.212 Appeals.

Any person desiring to file an appeal pursuant to § 1245.211(c) shall address the appeal to Chairman, Inventions and Contributions Board. Any person filing an appeal shall be afforded an opportunity to be heard before the Inventions and Contributions Board, and to offer evidence in support of his appeal. The procedures to be followed in any such matter shall be determined by the Administrator. The Board shall make findings of fact and recommendations with respect to disposition of the appeal. The decision on the appeal shall be made by the Administrator, and such decision shall be final and conclusive, except on questions of law, unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence.

§ 1245.213 Litigation.

An exclusive licensee shall be granted the right to sue at his own expense any party who infringes the rights set forth in his license and covered by the licensed patent. The licensee may join the Government, upon consent of the Attorney General, as a party complainant in such suit, but without expense to the Government and the licensee shall pay costs and any final judgment or decree that may be rendered against the Govern-

PATENT LICENSING REGULATIONS

ment in such suit. The Government shall also have an absolute right to intervene in any such suit at its own expense. The licensee shall be obligated to promptly furnish to the Government, upon request, copies of all pleadings and other papers filed in any such suit and of evidence adduced in proceedings relating to the licensed patent including, but not limited to, negotiations for settlement and agreements settling claims by a licensee based on the licensed patent, and all other books, documents, papers, and

records pertaining to such suit. If, as a result of any such litigation the patent shall be declared invalid, the licensee shall have the right to surrender his license and be relieved from any further obligation thereunder.

§ 1245.214 Address of communications.

(a) Communications to the Assistant General Counsel for Patent Matters in accordance with §§ 1245.206 and 1245.207 and requests for information concerning licenses for NASA inventions should be

addressed to the Assistant General Counsel for Patent Matters, Code GP, National Aeronautics and Space Administration, Washington, D.C. 20546

(b) Communications to the Inventions and Contributions Board in accordance with §§ 1245.208, 1245.211, and 1245.212 should be addressed to Chairman, Inventions and Contributions Board, National Aeronautics and Space Administration, Washington, D.C. 20546

Effective date. The regulations set forth in this subpart 2 are effective April 1, 1972.

JAMES C. FLETCHER,
Administrator.

FOREIGN PATENT LICENSING REGULATIONS

Selected NASA inventions are also available for licensing in countries other than the United States in accordance with the NASA Foreign Patent Licensing Regulation (14 C.F.R. 1245.4), a copy of which is available from any NASA Patent Counsel. For abstracts of NASA-owned inventions available for licensing in countries other than the United States, see NASA SP-7038, "Significant NASA Inventions Available for Licensing in Countries Other Than the United States." A copy of this NASA publication is available from NASA Headquarters, Code GP-4, Washington, D.C., 20546.

Subject Categories

(1969 – 1973)

01 Aerodynamics

Includes aerodynamics of bodies, combinations, internal flow in ducts and turbomachinery, wings, rotors, and control surfaces For applications see 02 Aircraft and 32 Space Vehicles For related information see also 12 Fluid Mechanics, and 33 Thermodynamics and Combustion

02 Aircraft

Includes fixed-wing airplanes, helicopters, gliders, balloons, ornithopters, etc., and specific types of complete aircraft (e.g., ground effect machines, STOL, and VTOL), flight tests, operating problems (e.g., sonic boom), safety and safety devices, economics, and stability and control For basic research see 01 Aerodynamics For related information see also 31 Space Vehicles, and 32 Structural Mechanics

03 Auxiliary Systems

Includes fuel cells, energy conversion cells, and solar cells, auxiliary gas turbines, hydraulic, pneumatic and electrical systems, actuators, and inverters For related information see also 09 Electronic Equipment, 22 Nuclear Engineering, and 28 Propulsion Systems

04 Biosciences

Includes aerospace medicine, exobiology, radiation effects on biological systems, physiological and psychological factors For related information see also 05 Biotechnology

05 Biotechnology

Includes life support systems, human engineering, protective clothing and equipment, crew training and evaluation, and piloting For related information see also 04 Biosciences

06 Chemistry

Includes chemical analysis and identification (e.g., spectroscopy) For applications see 17 Materials, Metallic, 18 Materials, Nonmetallic, and 27 Propellants

07 Communications

Includes communications equipment and techniques, noise, radio and communications blackout, modulation telemetry, tracking radar and optical observation, and wave propagation For basic research see 23 Physics, General, and 21 Navigation

08 Computers

Includes computer operation and programming, and data processing For applications, see specific categories For related information see also 19 Mathematics

09 Electronic Equipment

Includes electronic test equipment and maintainability, component parts, e.g., electron tubes, tunnel diodes, transistors, integrated circuitry, microminiaturization For basic research see 10 Electronics For related information see also 07 Communications and 21 Navigation

10 Electronics

Includes circuit theory, and feedback and control theory For applications see 09 Electronic Equipment For related information see specific Physics categories

11 Facilities, Research and Support

Includes airports, lunar and planetary bases including associated vehicles, ground support systems, related logistics, simulators, test facilities (e.g., rocket engine test stands, shock tubes, and wind tunnels), test ranges, and tracking stations

12 Fluid Mechanics

Includes boundary-layer flow, compressible flow, gas dynamics, hydrodynamics, and turbulence For related information see also 01 Aerodynamics, and 33 Thermodynamics and Combustion

13 Geophysics

Includes aeronomy, upper and lower atmosphere studies, oceanography, cartography, and geodesy For related information see also 20 Meteorology, 29 Space Radiation, and 30 Space Sciences

14 Instrumentation and Photography

Includes design, installation, and testing of instrumentation systems, gyroscopes, measuring instruments and gages, recorders, transducers, aerial photography, and telescopes and cameras

15 Machine Elements and Processes

Includes bearings, seals, pumps, and other mechanical equipment, lubrication, friction, and wear, manufacturing processes and quality control, reliability, drafting, and materials fabrication, handling, and inspection

16 Masers

Includes applications of masers and lasers For basic research see 26 Physics, Solid-State

17 Materials, Metallic

Includes cermets, corrosion, physical and mechanical properties of materials, metallurgy, and applications as structural materials For basic research see 06 Chemistry For related information see also 18 Materials, Nonmetallic, and 32 Structural Mechanics

18 Materials, Nonmetallic

Includes corrosion physical and mechanical properties of materials (e.g., plastics), and elastomers, hydraulic fluids, etc. For basic research see 06 Chemistry. For related information see also 17 Materials, Metallic, 27 Propellants, and 32 Structural Mechanics

19 Mathematics

Includes calculation methods and theory, and numerical analysis. For applications see specific categories. For related information see also 08 Computers

20 Meteorology

Includes climatology, weather forecasting, and visibility studies. For related information see also 13 Geophysics, and 30 Space Sciences

21 Navigation

Includes guidance, autopilots, star and planet tracking, inertial platforms, and air traffic control. For related information see also 07 Communications

22 Nuclear Engineering

Includes nuclear reactors and nuclear heat sources used for propulsion and auxiliary power. For basic research see 24 Physics, Atomic, Molecular, and Nuclear. For related information see also 03 Auxiliary Systems, and 28 Propulsion Systems

23 Physics, General

Includes acoustics, cryogenics, mechanics, and optics. For astrophysics see 30 Space Sciences. For geophysics and related information see also 13 Geophysics, 20 Meteorology, and 29 Space Radiation

24 Physics, Atomic, Molecular, and Nuclear

Includes atomic, molecular and nuclear physics. For applications see 22 Nuclear Engineering. For related information see also 29 Space Radiation

25 Physics, Plasma

Includes magnetohydrodynamics. For applications see 28 Propulsion Systems

26 Physics, Solid-State

Includes semiconductor theory, and superconductivity. For applications see 16 Masers. For related information see also 10 Electronics

27 Propellants

Includes fuels, igniters, and oxidizers. For basic re-

search see 06 Chemistry, and 33 Thermodynamics and Combustion. For related information see also 28 Propulsion Systems

28 Propulsion Systems

Includes air breathing, electric, liquid, solid, and magnetohydrodynamic propulsion. For nuclear propulsion see 22 Nuclear Engineering. For basic research see 23 Physics, General, and 33 Thermodynamics and Combustion. For applications see 31 Space Vehicles. For related information see also 27 Propellants

29 Space Radiation

Includes cosmic radiation, solar flares, solar radiation, and Van Allen radiation belts. For related information see also 13 Geophysics, and 24 Physics, Atomic, Molecular, and Nuclear

30 Space Sciences

Includes astronomy and astrophysics, cosmology, lunar and planetary flight and exploration, and theoretical analysis of orbits and trajectories. For related information see also 11 Facilities, Research and Support, and 31 Space Vehicles

31 Space Vehicles

Includes launch vehicles, manned space capsules, clustered and multistage rockets, satellites, sounding rockets and probes, and operating problems. For basic research see 30 Space Sciences. For related information see also 28 Propulsion Systems, and 32 Structural Mechanics

32 Structural Mechanics

Includes structural element design and weight analysis, fatigue, thermal stress, impact phenomena, vibration, flutter, inflatable structures, and structural tests. For related information see also 17 Materials, Metallic, and 18 Materials, Nonmetallic

33 Thermodynamics and Combustion

Includes ablation, cooling, heating, heat transfer, thermal balance, and other thermal effects, and combustion theory. For related information see also 12 Fluid Mechanics, and 27 Propellants

34 General

Includes information of a broad nature related to industrial applications and technology, and to basic research, defense aspects, information retrieval, management, law and related legal matters, and legislative hearings and documents

TABLE OF CONTENTS

Section 1 • Abstracts

Subject Categories (1974 –)

AERONAUTICS

Includes aeronautics (general), aerodynamics, air transportation and safety, aircraft communications and navigation, aircraft design, testing and performance, aircraft instrumentation, aircraft propulsion and power, aircraft stability and control, and research and support facilities (air)

For related information see also *Astronautics*

01 AERONAUTICS (GENERAL)

02 AERODYNAMICS

Includes aerodynamics of bodies, combinations, wings, rotors, and control surfaces, and internal flow in ducts and turbomachinery

For related information see also *34 Fluid Mechanics and Heat Transfer*

03 AIR TRANSPORTATION AND SAFETY

Includes passenger and cargo air transport operations, and aircraft accidents

For related information see also *16 Space Transportation* and *85 Urban Technology and Transportation*

04 AIRCRAFT COMMUNICATIONS AND NAVIGATION

Includes digital and voice communication with aircraft, air navigation systems (satellite and ground based), and air traffic control

For related information see also *17 Spacecraft Communications, Command and Tracking* and *32 Communications*

05 AIRCRAFT DESIGN, TESTING AND PERFORMANCE

Includes aircraft simulation technology

For related information see also *18 Spacecraft Design, Testing and Performance* and *39 Structural Mechanics*

06 AIRCRAFT INSTRUMENTATION

Includes cockpit and cabin display devices, and flight instruments

For related information see also *19 Spacecraft Instrumentation* and *35 Instrumentation and Photography*

07 AIRCRAFT PROPULSION AND POWER

Includes prime propulsion systems and systems components, e.g., gas turbine engines and compressors, and on-board auxiliary power plants for aircraft

For related information see also *20 Spacecraft Propulsion and Power*, *28 Propellants and Fuels*, and *44 Energy Production and Conversion*

08 AIRCRAFT STABILITY AND CONTROL

Includes aircraft handling qualities, piloting, flight controls, and autopilots

09 RESEARCH AND SUPPORT FACILITIES (AIR)

Includes airports, hangars and runways, aircraft repair and overhaul facilities, wind tunnels, shock tube facilities, and engine test blocks

For related information see also *14 Ground Support Systems and Facilities (Space)*

ASTRONAUTICS

Includes astronautics (general), astrodynamics, ground support systems and facilities (space), launch vehicles and space vehicles, space transportation, spacecraft communications, command and tracking, spacecraft design, testing and performance, spacecraft instrumentation, and spacecraft propulsion and power

For related information see also *Aeronautics*

12 ASTRONAUTICS (GENERAL)

For extraterrestrial exploration see *91 Lunar and Planetary Exploration*

13 ASTRODYNAMICS

Includes powered and free-flight trajectories, and orbit and launching dynamics

14 GROUND SUPPORT SYSTEMS AND FACILITIES (SPACE)

Includes launch complexes, research and production facilities, ground support equipment, e.g., mobile transporters, and simulators

For related information see also *09 Research and Support Facilities (Air)*

15 LAUNCH VEHICLES AND SPACE VEHICLES

Includes boosters, manned orbital laboratories, reusable vehicles, and space stations

16 SPACE TRANSPORTATION

Includes passenger and cargo space transportation, e.g., shuttle operations, and rescue techniques

For related information see also *03 Air Transportation and Safety* and *85 Urban Technology and Transportation*

17 SPACECRAFT COMMUNICATIONS, COMMAND AND TRACKING

Includes telemetry, space communications networks, astronavigation, and radio blackout

For related information see also *04 Aircraft Communications and Navigation* and *32 Communications*

18 SPACECRAFT DESIGN, TESTING AND PERFORMANCE

Includes spacecraft thermal and environmental control, and attitude control

For life support systems see *54 Man/System Technology and Life Support* For related information see also *05 Aircraft Design, Testing and Performance* and *39 Structural Mechanics*

19 SPACECRAFT INSTRUMENTATION

For related information see also *06 Aircraft Instrumentation* and *35 Instrumentation and Photography*

20 SPACECRAFT PROPULSION AND POWER

Includes main propulsion systems and components, e.g., rocket engines, and spacecraft auxiliary power sources

For related information see also *07 Aircraft Propulsion and Power*, *28 Propellants and Fuels*, and *44 Energy Production and Conversion*.

CHEMISTRY AND MATERIALS

Includes chemistry and materials (general), composite materials, inorganic and physical chemistry, metallic materials, nonmetallic materials, and propellants and fuels

23 CHEMISTRY AND MATERIALS (GENERAL)

Includes biochemistry and organic chemistry

24 COMPOSITE MATERIALS

Includes laminates

25 INORGANIC AND PHYSICAL CHEMISTRY

Includes chemical analysis, e.g., chromatography, combustion theory, electrochemistry, and photochemistry

For related information see also *77 Thermodynamics and Statistical Physics*

26 METALLIC MATERIALS

Includes physical, chemical, and mechanical properties of metals, e.g., corrosion, and metallurgy

27 NONMETALLIC MATERIALS

Includes physical, chemical, and mechanical properties of plastics, elastomers, lubricants, polymers, textiles, adhesives, and ceramic materials

28 PROPELLANTS AND FUELS

Includes rocket propellants, igniters, and oxidizers, storage and handling, and aircraft fuels

For related information see also *07 Aircraft Propulsion and Power*, *20 Spacecraft Propulsion and Power*, and *44 Energy Production and Conversion*

ENGINEERING

Includes engineering (general), communications, electronics and electrical engineering, fluid mechanics and heat transfer, instrumentation and photography, lasers and masers, mechanical engineering, quality assurance and reliability, and structural mechanics.

For related information see also *Physics*

31 ENGINEERING (GENERAL)

Includes vacuum technology, control engineering, display engineering, and cryogenics

32 COMMUNICATIONS

Includes land and global communications, communications theory, and optical communications

For related information see also *04 Aircraft Communications and Navigation* and *17 Spacecraft Communications, Command and Tracking*

33 ELECTRONICS AND ELECTRICAL ENGINEERING

Includes test equipment and maintainability, components, e.g., tunnel diodes and transistors, microminiaturization, and integrated circuitry

For related information see also *60 Computer Operations and Hardware* and *76 Solid-State Physics*

34 FLUID MECHANICS AND HEAT TRANSFER

Includes boundary layers, hydrodynamics, fluidics, mass transfer, and ablation cooling

For related information see also *02 Aerodynamics* and *77 Thermodynamics and Statistical Physics*

35 INSTRUMENTATION AND PHOTOGRAPHY

Includes remote sensors, measuring instruments and gages, detectors, cameras and photographic supplies, and holography

For aerial photography see *43 Earth Resources*
For related information see also *06 Aircraft Instrumentation* and *19 Spacecraft Instrumentation*

36 LASERS AND MASERS

Includes parametric amplifiers

37 MECHANICAL ENGINEERING

Includes auxiliary systems (non-power), machine elements and processes, and mechanical equipment

38 QUALITY ASSURANCE AND RELIABILITY

Includes product sampling procedures and techniques, and quality control

39 STRUCTURAL MECHANICS

Includes structural element design and weight analysis, fatigue, and thermal stress

For applications see *05 Aircraft Design, Testing and Performance* and *18 Spacecraft Design, Testing and Performance*

GEOSCIENCES

Includes geosciences (general), earth resources; energy production and conversion, environment pollution, geophysics, meteorology and climatology, and oceanography

For related information see also *Space Sciences*.

42 GEOSCIENCES (GENERAL)

43 EARTH RESOURCES

Includes remote sensing of earth resources by aircraft and spacecraft, photogrammetry, and aerial photography

For instrumentation see *35 Instrumentation and Photography*

44 ENERGY PRODUCTION AND CONVERSION

Includes specific energy conversion systems, e.g., fuel cells and batteries, global sources of energy, fossil fuels, geophysical conversion, hydroelectric power, and wind power

For related information see also *07 Aircraft Propulsion and Power*, *20 Spacecraft Propulsion and Power*, *28 Propellants and Fuels*, and *85 Urban Technology and Transportation*

45 ENVIRONMENT POLLUTION

Includes air, noise, thermal and water pollution, environment monitoring, and contamination control

46 GEOPHYSICS

Includes aeronomy, upper and lower atmosphere studies, ionospheric and magnetospheric physics, and geomagnetism

For space radiation see *93 Space Radiation*

47 METEOROLOGY AND CLIMATOLOGY

Includes weather forecasting and modification

48 OCEANOGRAPHY

Includes biological, dynamic and physical oceanography, and marine resources

LIFE SCIENCES

Includes life sciences (general), aerospace medicine, behavioral sciences, man/system technology and life support, and planetary biology

51 LIFE SCIENCES (GENERAL)

Includes genetics

52 AEROSPACE MEDICINE

Includes physiological factors, biological effects of radiation, and weightlessness

53 BEHAVIORAL SCIENCES

Includes psychological factors, individual and group behavior, crew training and evaluation, and psychiatric research

54 MAN/SYSTEM TECHNOLOGY AND LIFE SUPPORT

Includes human engineering, biotechnology, and space suits and protective clothing

55 PLANETARY BIOLOGY

Includes exobiology, and extraterrestrial life

MATHEMATICAL AND COMPUTER SCIENCES

Includes mathematical and computer sciences (general), computer operations and hardware, computer programming and software, computer systems, cybernetics, numerical analysis, statistics and probability, systems analysis, and theoretical mathematics

59 MATHEMATICAL AND COMPUTER SCIENCES (GENERAL)

60 COMPUTER OPERATIONS AND HARDWARE

Includes computer graphics and data processing
For components see *33 Electronics and Electrical Engineering*

61 COMPUTER PROGRAMMING AND SOFTWARE

Includes computer programs, routines, and algorithms

62 COMPUTER SYSTEMS

Includes computer networks

63 CYBERNETICS

Includes feedback and control theory
For related information see also *54 Man/System Technology and Life Support*

64 NUMERICAL ANALYSIS

Includes iteration, difference equations, and numerical approximation

65 STATISTICS AND PROBABILITY

Includes data sampling and smoothing, Monte Carlo method, and stochastic processes

66 SYSTEMS ANALYSIS

Includes mathematical modeling, network analysis, and operations research

67 THEORETICAL MATHEMATICS

Includes topology and number theory

PHYSICS

Includes physics (general), acoustics, atomic and molecular physics, nuclear and high-energy physics, optics, plasma physics, solid-state physics, and thermodynamics and statistical physics

For related information see also *Engineering*

70 PHYSICS (GENERAL)

For geophysics see *46 Geophysics* For astrophysics see *90 Astrophysics* For solar physics see *92 Solar Physics*

71 ACOUSTICS

Includes sound generation, transmission, and attenuation

For noise pollution see *45 Environment Pollution*

72 ATOMIC AND MOLECULAR PHYSICS

Includes atomic structure and molecular spectra

73 NUCLEAR AND HIGH-ENERGY PHYSICS

Includes elementary and nuclear particles, and reactor theory

For space radiation see *93 Space Radiation*

74 OPTICS

Includes light phenomena

75 PLASMA PHYSICS

Includes magnetohydrodynamics and plasma fusion

For ionospheric plasmas see *46 Geophysics* For space plasmas see *90 Astrophysics*

76 SOLID-STATE PHYSICS

Includes superconductivity

For related information see also *33 Electronics and Electrical Engineering* and *36 Lasers and Masers*

77 THERMODYNAMICS AND STATISTICAL PHYSICS

Includes quantum mechanics, and Bose and Fermi statistics

For related information see also *25 Inorganic and Physical Chemistry* and *34 Fluid Mechanics and Heat Transfer*

SOCIAL SCIENCES

Includes social sciences (general), administration and management, documentation and information science, economics and cost analysis, law and political science, and urban technology and transportation

80 SOCIAL SCIENCES (GENERAL)

Includes educational matters

81 ADMINISTRATION AND MANAGEMENT

Includes management planning and research

82 DOCUMENTATION AND INFORMATION SCIENCE

Includes information storage and retrieval technology, micrography, and library science

For computer documentation see *61 Computer Programming and Software*

83 ECONOMICS AND COST ANALYSIS

Includes cost effectiveness studies

84 LAW AND POLITICAL SCIENCE

Includes space law, international law, international cooperation, and patent policy

85 URBAN TECHNOLOGY AND TRANSPORTATION

Includes applications of space technology to urban problems, technology transfer, technology assessment, and surface and mass transportation

For related information see *03 Air Transportation and Safety*, *16 Space Transportation*, and *44 Energy Production and Conversion*

SPACE SCIENCES

Includes space sciences (general), astronomy, astrophysics, lunar and planetary exploration, solar physics, and space radiation

For related information see also *Geosciences*

88 SPACE SCIENCES (GENERAL)

89 ASTRONOMY

Includes radio and gamma-ray astronomy, celestial mechanics, and astrometry

90 ASTROPHYSICS

Includes cosmology, and interstellar and interplanetary gases and dust

91 LUNAR AND PLANETARY EXPLORATION

Includes planetology, and manned and unmanned flights

For spacecraft design see *18 Spacecraft Design, Testing and Performance* For space stations see *15 Launch Vehicles and Space Vehicles*

92 SOLAR PHYSICS

Includes solar activity, solar flares, solar radiation and sunspots

93 SPACE RADIATION

Includes cosmic radiation, and inner and outer earth's radiation belts

For biological effects of radiation see *52 Aerospace Medicine* For theory see *73 Nuclear and High-Energy Physics*

GENERAL

99 GENERAL

Note N A means that no abstracts were assigned to this category for this issue

Section 2 • Indexes

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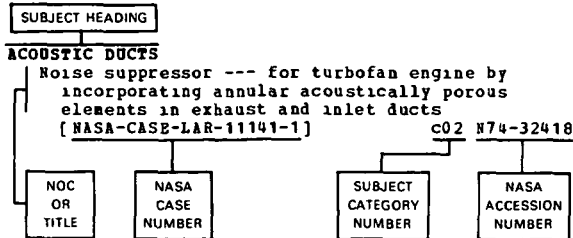
Subject Index

NASA PATENT ABSTRACTS BIBLIOGRAPHY

JULY 1978

Section 2

Typical Subject Index Listing



The subject heading is the key to the subject content of the document. A brief description of the document e.g. title title plus a title extension or Notation of Content (NOC) is included for each subject entry to indicate the subject heading context. These descriptions are arranged under each subject heading in ascending accession number order. The NASA Case Number serves as the prime access number to the patent documents. The Subject Category Number indicates the category in Section 1 (Abstracts) in which the patent citation and abstract are located. The NASA accession number denotes the number by which the citation is identified within the subject category.

A

ABLATION

Transpirationally cooled heat ablation system for interplanetary spacecraft reentry shielding [NASA-CASE-XMS-02677] c31 N70-42075

Hypersonic test facility for studying ablation in models under high pressure and high temperature [NASA-CASE-XLA-00378] c11 N71-15925

Design of hypersonic test facility for ablation tests and performance tests of vehicles under conditions of high temperature and pressure [NASA-CASE-XLA-05378] c11 N71-21475

Ablation sensor for measuring char layer recession rate using electric wires [NASA-CASE-XLA-01794] c33 N71-21586

Ablation sensor for measuring surface ablation rate of material on vehicles entering earths atmosphere on entry into planetary atmospheres [NASA-CASE-XLA-01791] c14 N71-22991

Ablative system with liquid carrying ablative material bodies and forming self-replacing ablative surface [NASA-CASE-LEW-10359] c33 N72-25911

ABLATIVE MATERIALS

Filling honeycomb matrix with deaerated paste filler [NASA-CASE-XMS-01108] c15 N69-24322

Sensor device with switches for measuring surface recession of charring and noncharring ablators [NASA-CASE-XLA-01781] c14 N69-39975

Vacuum method for molding thermosetting compounds used as ablative materials [NASA-CASE-XLA-01091] c15 N71-10672

Ablative resins used for retarding regression in ablative material [NASA-CASE-XLE-05913] c33 N71-14032

Design, development, and characteristics of ablation structures [NASA-CASE-XMS-01816] c33 N71-15623

Method and apparatus for fabrication of heat insulating and ablative reentry structure [NASA-CASE-XMS-02009] c33 N71-20834

Production and application of sprayable fiber reinforced ablation material [NASA-CASE-XLA-04251] c18 N71-26100

Ablative heat shield for protection from aerodynamic heating of reentry spacecraft [NASA-CASE-MSC-12143-1] c33 N72-17947

Ablative system with liquid carrying ablative material bodies and forming self-replacing

ablative surface [NASA-CASE-LEW-10359] c33 N72-25911

Carrier liquid system containing bodies of ablative material [NASA-CASE-LEW-10359-2] c33 N73-25952

Ablation article and surface for analyzing flow transition on ablative surface [NASA-CASE-LAR-10439-1] c33 N73-27796

Dual measurement ablation sensor [NASA-CASE-LAR-10105-1] c34 N74-15652

Intumescent-ablator coatings using endothermic fillers [NASA-CASE-ABC-11043-1] c34 N77-14372

Sprayable low density ablator [NASA-CASE-MFS-23506-1] c24 N77-15105

ABORT APPARATUS

Coupling device for linear shaped charge for space vehicle abort system [NASA-CASE-XLA-00189] c33 N70-36846

ABRASION RESISTANCE

Zinc dust formulation for abrasion resistant steel coatings [NASA-CASE-GSC-10361-1] c18 N72-23581

Improved nozzle for use with abrasive and/or corrosive materials [NASA-CASE-NPO-13823-1] c37 N77-17466

Abrasion resistant coatings for plastic surfaces [NASA-CASE-ABC-10915-3] c24 N77-24200

ABSORBENTS

Absorbent apparatus for separating gas from liquid-gas stream used in environmental control under zero gravity conditions [NASA-CASE-XMS-01492] c05 N70-41297

Fluid flow control valve for regulating fluids in molecular quantities [NASA-CASE-XLE-00703] c15 N71-15967

Noncontaminating swab with absorbent end covered with netted envelope to prevent egress of absorbent material [NASA-CASE-MFS-18100] c15 N72-11390

Protein sterilization of firefly luciferase without denaturation [NASA-CASE-GSC-10225-1] c06 N73-27086

Oil and fat absorbing polymers [NASA-CASE-NPO-11609-2] c27 N77-31308

ABSORBERS (MATERIALS)

Broadband chokes and absorbers to reduce spurious radiation patterns of antenna array caused by support structures [NASA-CASE-XMS-05303] c07 N69-27462

Analytical photoionization mass spectrometer with argon gas filter between light source and monochromator [NASA-CASE-LAR-10180-1] c06 N71-13461

Development of filter system for control of outgas contamination in vacuum conditions using absorbent beds of molecular sieve zeolite, silica gel, and charcoal [NASA-CASE-MFS-14711] c15 N71-26185

Development and characteristics of calorimeter with integral heat sink for maintenance of constant temperature [NASA-CASE-XMF-04208] c33 N71-29051

Aldehyde-containing urea-absorbing polysaccharides [NASA-CASE-NPO-13620-1] c27 N77-30236

ABSORPTION

Differential optoacoustic absorption detector [NASA-CASE-NPO-13759-1] c74 N78-17867

ABSORPTION CROSS SECTIONS

Radiation source and detection system for measuring amount of liquid inside tanks independently of liquid configuration [NASA-CASE-MSC-12280] c27 N71-16348

ABSORPTIVITY

Detector absorptivity measuring method and

- apparatus
[NASA-CASE-LAR-10907-1] c35 N76-29551
- AC GENERATORS**
Alternating current signal generator providing plurality of amplitude modulated output signals
[NASA-CASE-XNP-05612] c09 N69-21468
Improved alternator with windings of superconducting materials acting as permanent magnet
[NASA-CASE-XLE-02824] c03 N69-39890
Superconducting alternator design with cryogenic fluid for cooling windings below critical temperature
[NASA-CASE-XLE-02823] c09 N71-23443
- ACCELERATION**
Single grid accelerator system for electron bombardment type ion thruster
[NASA-CASE-XLE-10453-2] c28 N73-27699
- ACCELERATION (PHYSICS)**
Centrifuge mounted motion simulator with elevator mechanism
[NASA-CASE-XAC-00399] c11 N70-34815
Gravity device for accurate and rapid indication of relative gravity conditions aboard accelerating carrier
[NASA-CASE-XMF-00424] c11 N70-38196
Development of method for producing artificial gravity in manned spacecraft
[NASA-CASE-XNP-02595] c31 N71-21881
Vibration control of flexible bodies in steady accelerating environment
[NASA-CASE-LAR-10106-1] c15 N71-27169
G-load measuring and indicator apparatus --- for aircraft
[NASA-CASE-ARC-10806] c06 N74-27872
Apparatus for applying simulator g-forces to an arm of an aircraft simulator pilot
[NASA-CASE-LAR-10550-1] c09 N74-30597
G-load measuring and indicator apparatus
[NASA-CASE-ARC-10806-1] c35 N75-29381
A seat cushion to provide realistic acceleration cues for aircraft simulator pilots
[NASA-CASE-LAR-12149-1] c54 N77-31787
- ACCELERATION PROTECTION**
Astronaut restraint suit for high acceleration protection
[NASA-CASE-XAC-00405] c05 N70-41819
Conditioning suit for normal function of astronaut cardiovascular system in gravity environment
[NASA-CASE-XLA-02898] c05 N71-20268
- ACCELERATION STRESSES (PHYSIOLOGY)**
Development of method for producing artificial gravity in manned spacecraft
[NASA-CASE-XNP-02595] c31 N71-21881
- ACCELERATION TOLERANCE**
Electronic detection system for peak acceleration limits in vibrational testing of spacecraft components
[NASA-CASE-NPO-10556] c14 N71-27185
- ACCELERATORS**
Annular arc accelerator shock tube
[NASA-CASE-NPO-13528-1] c09 N77-10071
Spring operated accelerator and constant force spring mechanism therefor
[NASA-CASE-ARC-10898-1] c35 N77-18417
- ACCELEROMETERS**
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[NASA-CASE-MFS-16609] c14 N72-21431

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[NASA-CASE-NPO-13886-1] c32 N77-11269

AIRCRAFT APPROACH SPACING
Economical satellite aided vehicle avoidance
system for preventing midair collisions
[NASA-CASE-ERC-10419] c21 N72-21631

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[NASA-CASE-LAR-11852-1] c05 N77-15027

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[NASA-CASE-XLA-00230] c02 N70-33255
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flight
[NASA-CASE-XPR-03107] c09 N71-19449
Design of dual fuselage aircraft with pivoting
wing and horizontal stabilizer to permit
yawing of wing in flight for high speed
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[NASA-CASE-ABC-10470-1] c02 N73-26005
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reduction of jet aircraft noise by exhausting
engine gases over upper surface of wing
[NASA-CASE-LAR-11087-1] c02 N73-26008
Variable dihedral shuttle orbiter
[NASA-CASE-LAR-10706-2] c05 N77-31132

AIRCRAFT CONTROL
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system for flexible wings
[NASA-CASE-XLA-06958] c02 N71-11038
Development of attitude control system for
vertical takeoff aircraft using reaction
nozzles displaced from various axes of aircraft

[NASA-CASE-XAC-08972] c02 N71-20570
Device for controlling rotary potentiometer
mounted on aircraft steering wheel or aileron
control
[NASA-CASE-XAC-10019] c15 N71-23809
Direct lift control system having flaps with
slots adjacent to their leading edge and
particularly adapted for lightweight aircraft
[NASA-CASE-LAR-10249-1] c02 N71-26110
Supersonic or hypersonic vehicle control system
comprising elevons with hinge line sweep and
free of adverse aerodynamic cross coupling
[NASA-CASE-XLA-08967] c02 N71-27088
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performance electrically controlled and
mechanically operated hydraulic valves for
precise flight operation
[NASA-CASE-XAC-00048] c02 N71-29128
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application to control of aircraft and
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[NASA-CASE-ERC-10350] c14 N73-20474
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control flutter over large range of
oscillatory frequencies using stability
augmentation techniques
[NASA-CASE-LAR-10682-1] c02 N73-26004
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[NASA-CASE-ABC-10456-1] c05 N75-12930
High lift aircraft --- with improved stability,
control, performance, and noise characteristics
[NASA-CASE-LAR-11252-1] c05 N75-25914
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[NASA-CASE-LAR-11868-2] c08 N77-31176
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[NASA-CASE-XLA-04451] c02 N71-12243
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wing and horizontal stabilizer to permit
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[NASA-CASE-ABC-10470-1] c02 N73-26005
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[NASA-CASE-XMF-02263] c05 N74-10907
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[NASA-CASE-ABC-10470-3] c05 N76-29217
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[NASA-CASE-LAR-11932-1] c05 N76-31219
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[NASA-CASE-LAR-11852-1] c05 N77-15027

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incorporating annular acoustically porous
elements in exhaust and inlet ducts
[NASA-CASE-LAR-11141-1] c07 N74-32418
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[NASA-CASE-LAR-11626-1] c34 N77-12332
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[NASA-CASE-LAR-11310-1] c07 N77-28118
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nacelle inlets of jet aircraft
[NASA-CASE-XLE-00388] c28 N70-34788

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[NASA-CASE-XLA-00487] c14 N70-40157
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[NASA-CASE-XAC-04030] c10 N71-19472
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[NASA-CASE-NPO-10302] c10 N71-26142
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degrees of freedom
[NASA-CASE-XMS-02977] c11 N71-10746

ASTRONAUTS

SUBJECT INDEX

Low and zero gravity simulator for astronaut training
[NASA-CASE-MFS-10555] c11 N71-19494

Apparatus for training astronaut crews to perform on simulated lunar surface under conditions of lunar gravity
[NASA-CASE-XMS-04798] c11 N71-21474

ASTRONAUTS

Three transceiver lunar emergency system to relay voice communication of astronaut
[NASA-CASE-MFS-21042] c07 N72-25171

Manual actuator --- for spacecraft exercising machines
[NASA-CASE-MFS-21481-1] c37 N74-18127

ASTRONAVIGATION

Guidance analyzer having suspended spacecraft simulating sphere for astronavigation
[NASA-CASE-XNP-09572] c14 N71-15621

ASTRONOMICAL PHOTOGRAPHY

Cameras for photographing meteors in selected sky area
[NASA-CASE-LAR-10226-1] c14 N73-19419

ASTRONOMICAL TELESCOPES

Light sensitive control system for automatically opening and closing dome of solar optical telescope
[NASA-CASE-MSC-10966] c14 N71-19568

Laser beam projector for continuous, precise alignment between target, laser generator, and astronomical telescope during tracking
[NASA-CASE-NPO-11087] c23 N71-29125

Star image motion compensator using telescope for maintaining fixed images
[NASA-CASE-LAR-10523-1] c14 N72-22444

System for the measurement of ultra-low stray light levels --- light shields and baffles
[NASA-CASE-MFS-23513-1] c74 N77-14842

Partial polarizer filter
[NASA-CASE-GSC-12225-1] c74 N77-30935

ATMOSPHERIC COMPOSITION

Design and development of two types of atmosphere sampling chambers
[NASA-CASE-NPO-11373] c13 N72-25323

Development and operation of apparatus for sampling particulates in gases in upper atmosphere
[NASA-CASE-HQN-10037-1] c14 N73-27376

Monitoring atmospheric pollutants with a heterodyne radiometer transmitter-receiver
[NASA-CASE-NPO-11919-1] c35 N74-11284

ATMOSPHERIC ENTRY

Designing spacecraft for flight into space, atmospheric reentry, and landing at selected sites
[NASA-CASE-XAC-02058] c02 N71-16087

Development of method for measuring electron density gradients of plasma sheath around space vehicle during atmospheric entry
[NASA-CASE-XLA-06232] c25 N71-20563

Orbital and entry tracking accessory for globes --- to provide range requirements for reentry vehicles to any landing site
[NASA-CASE-LAR-10626-1] c19 N74-21015

ATMOSPHERIC ENTRY SIMULATION

Crossed-field plasma accelerator for laboratory simulation of atmospheric reentry conditions
[NASA-CASE-XLA-00675] c25 N70-33267

Wind tunnel method for simulating flow fields around blunt vehicles entering planetary atmospheres without involving high temperatures
[NASA-CASE-LAR-11138] c12 N71-20436

ATMOSPHERIC PHYSICS

Development and characteristics of apparatus for measuring intensity of electric field in atmosphere
[NASA-CASE-KSC-10730-1] c14 N73-32318

ATMOSPHERIC RADIATION

Radiometric measuring system for solar activity and atmospheric attenuation and emission
[NASA-CASE-ERC-10276] c14 N73-26432

ATMOSPHERIC SCATTERING

Clear air turbulence detector
[NASA-CASE-MFS-21244-1] c36 N75-15028

ATMOSPHERIC TURBULENCE

Passive optical wind and turbulence remote detection system
[NASA-CASE-XMF-14032] c20 N71-16340

Focused laser Doppler velocimeter
[NASA-CASE-MFS-23178-1] c35 N77-10493

ATOM CONCENTRATION

Atomic hydrogen storage method and apparatus --- cryotrapping and magnetic field strength
[NASA-CASE-LBN-12081-2] c72 N78-19907

ATOMIZERS

Portable cryogenic cooling system design including turbine pump, cooling chamber, and atomizer
[NASA-CASE-NFO-10467] c23 N71-26654

ATS

Doppler frequency shift correction device for multiplex communication with Applications Technology Satellites
[NASA-CASE-XGS-02749] c07 N69-39978

ATTACHMENT

Silicon carbide backward diode with coated lead attachment
[NASA-CASE-ERC-10224-2] c09 N73-27150

ATTENUATORS

Rotary vane attenuator with two stators and intermediary rotor, using resistive and orthogonally disposed cards
[NASA-CASE-NPO-11418-1] c14 N73-13420

ATTITUDE (INCLINATION)

Analog spatial maneuver computer with three output angles for obtaining desired spatial attitude
[NASA-CASE-GSC-10880-1] c08 N72-11172

Spacecraft attitude sensing system design with narrow field of view sensor rotating about spacecraft x-y axis
[NASA-CASE-GSC-10890-1] c21 N73-30640

Interferometer mirror tilt correcting system
[NASA-CASE-NPO-13687-1] c35 N78-18391

ATTITUDE CONTROL

Visual target luminaires for retrofire attitude control
[NASA-CASE-XMS-12158-1] c31 N69-27499

Unitary three-axis controller for flight vehicles within or outside atmosphere
[NASA-CASE-XFR-00181] c21 N70-33279

Sensing method and device for determining orientation of space vehicle or satellite by using particle traps
[NASA-CASE-XGS-00466] c21 N70-34297

Attitude and propellant flow control system for liquid propellant rocket vehicles
[NASA-CASE-XMF-00185] c21 N70-34539

Spacecraft attitude control system using solar and earth sensors, gyroscopes, and jet actuators
[NASA-CASE-XNP-00465] c21 N70-35395

Attitude control device for space vehicles
[NASA-CASE-XNP-00294] c21 N70-36938

Attitude orientation control of spin stabilized final stage space vehicles, using horizon scanners
[NASA-CASE-XLA-00281] c21 N70-36943

Automatic ejection valve for attitude control and midcourse guidance of space vehicles
[NASA-CASE-XNP-00676] c15 N70-38996

Three-axis controller operated by hand-wrist motion for yaw, pitch, and roll control
[NASA-CASE-XAC-01404] c05 N70-41581

Attitude control training device for astronauts permitting friction-free movement with five degrees of freedom
[NASA-CASE-XMS-02977] c11 N71-10746

Photomultiplier detector of Canopus for spacecraft attitude control
[NASA-CASE-XNF-03914] c21 N71-10771

Automatic balancing device for use on frictionless supported attitude-controlled test platforms
[NASA-CASE-LAR-10774] c10 N71-13545

Development of spacecraft experiment pointing and attitude control system
[NASA-CASE-XLA-05464] c21 N71-14132

Development of attitude control system for spacecraft orientation
[NASA-CASE-XGS-04393] c21 N71-14159

System for aerodynamic control of rocket vehicles by secondary injection of fluid into nozzle exhaust stream
[NASA-CASE-XLA-01163] c21 N71-15582

Drive mechanism for operating reactance attitude control system for aerospace bodies
[NASA-CASE-XMF-01598] c21 N71-15583

Attitude detection system using stellar references for three-axis control and spin

- stabilized spacecraft
[NASA-CASE-XGS-03431] c21 N71-15642
- Remote control device operated by movement of
finger tips for manual control of spacecraft
attitude
[NASA-CASE-XAC-02405] c09 N71-16089
- Thrust and attitude control apparatus using jet
nozzle in movable canard surface or fin
configuration
[NASA-CASE-XLE-03583] c31 N71-17629
- Attitude sensor with scanning mirrors for
detecting orientation of space vehicle with
respect to planet
[NASA-CASE-XLA-00793] c21 N71-22880
- Development of attitude control system for
sounding rocket stabilization during ballistic
phase of flight
[NASA-CASE-XGS-01654] c31 N71-24750
- Development of voice operated controller for
controlling reaction jets of spacecraft
[NASA-CASE-XLA-04063] c31 N71-33160
- Attitude sensor
[NASA-CASE-LAR-10586-1] c19 N74-15089
- Temperature compensated digital inertial sensor
--- circuit for maintaining inertial element
of gyroscope or accelerometer at constant
position
[NASA-CASE-NPO-13044-1] c35 N74-15094
- Thrust augmented spin recovery device
[NASA-CASE-LAR-11970-1] c08 N77-22147
- Sun direction detection system
[NASA-CASE-NPO-13722-1] c74 N77-22951
- ATTITUDE GYROS**
Spacecraft attitude control system using solar
and earth sensors, gyroscopes, and jet actuators
[NASA-CASE-XNP-00465] c21 N70-35395
- Attitude control system
[NASA-CASE-MFS-22787-1] c15 N77-10113
- ATTITUDE INDICATORS**
Photosensitive light source device for detecting
unmanned spacecraft deviation from reference
attitude
[NASA-CASE-XNP-00438] c21 N70-35089
- Hand controller operable about three
respectively perpendicular axes and capable of
actuating signal generators for attitude
control devices
[NASA-CASE-XMS-07487] c15 N71-23255
- Combined optical attitude and altitude
indicating instrument for use in aircraft or
spacecraft
[NASA-CASE-XLA-01907] c14 N71-23268
- Aircraft horizon and vertical indicator
[NASA-CASE-EEC-10392] c21 N73-14692
- Attitude sensor
[NASA-CASE-LAR-10586-1] c19 N74-15089
- Translatory shock absorber for attitude sensors
[NASA-CASE-MFS-22905-1] c19 N76-22284
- ATTITUDE STABILITY**
Dynamic precession damping of spin-stabilized
vehicles by using rate gyroscope and angular
accelerometer
[NASA-CASE-XLA-01989] c21 N70-34295
- Attitude stabilizer for nonguided missile or
vehicle with respect to trajectory
[NASA-CASE-ABC-10134] c30 N72-17873
- AUDIO EQUIPMENT**
Audio equipment for removing impulse noise from
audio signals
[NASA-CASE-NPO-11631] c10 N73-12244
- AUDIO FREQUENCIES**
High efficiency transformerless amplitude
modulator coupled to EF power amplifier
[NASA-CASE-GSC-10668-1] c07 N71-28430
- Audio frequency analysis circuit for
determining, displaying, and recording
frequency of sweeping audio frequency signal
[NASA-CASE-NPO-11147] c14 N72-27408
- AUDITORY DEFECTS**
Hearing aid malfunction detection system
[NASA-CASE-MSC-14916-1] c33 N78-10375
- AUDITORY PERCEPTION**
Auditory display for the blind
[NASA-CASE-HQN-10832-1] c71 N74-21014
- AUDITORY SIGNALS**
Audio signal processing system for noise surge
elimination at low amplitude audio input
[NASA-CASE-MSC-12223-1] c07 N71-26181
- Audio equipment for removing impulse noise from
audio signals
[NASA-CASE-NPO-11631] c10 N73-12244
- AUDITORY STIMULI**
Auditory display for the blind
[NASA-CASE-HQN-10832-1] c71 N74-21014
- AUSTENITIC STAINLESS STEELS**
Intermetallic chromium containing nickel
aluminide for high temperature corrosion
protection of stainless steels
[NASA-CASE-LEW-11267-1] c17 N73-32414
- Device for measuring the ferrite content in an
austenitic stainless-steel weld
[NASA-CASE-MFS-22907-1] c26 N76-18257
- Reduced chromium stainless steel alloys
[NASA-CASE-LEW-12543-1] c26 N77-21217
- AUTOCORRELATION**
Linear three-tap feedback shift register
[NASA-CASE-NPO-10351] c08 N71-12503
- Circuitry for developing autocorrelation
function continuously within signal receiving
period
[NASA-CASE-XNP-00746] c07 N71-21476
- AUTOMATIC CONTROL**
Automatic control of voltage supply to direct
current motor
[NASA-CASE-XMS-04215-1] c09 N69-39987
- Electro-optical/computer system for aligning
large structural members and maintaining
correct position
[NASA-CASE-XNP-02029] c14 N70-41955
- Pulsed energy power system for application of
combustible gases to turbine controlling ac
voltage generator
[NASA-CASE-MSC-13112] c03 N71-11057
- Automatic balancing device for use on
frictionless supported attitude-controlled
test platforms
[NASA-CASE-LAR-10774] c10 N71-13545
- Computer controlled apparatus for maintaining
welding torch angle and velocity during seam
tracking
[NASA-CASE-XNP-03287] c15 N71-15607
- Fluid leakage detection system with automatic
monitoring capability
[NASA-CASE-LAR-10323-1] c12 N71-17573
- Light sensitive control system for automatically
opening and closing dome of solar optical
telescope
[NASA-CASE-MSC-10966] c14 N71-19568
- Welding torch with automatic speed controller
using speed sensing wheel and closed servo
system
[NASA-CASE-XNP-01730] c15 N71-23050
- Microwave waveguide switch with rotor position
control
[NASA-CASE-XNP-06507] c09 N71-23548
- Automatically reciprocating, high pressure pump
for use in spacecraft cryogenic propellants
[NASA-CASE-XNP-04731] c15 N71-24042
- Automatic controlled thermal fatigue testing
apparatus
[NASA-CASE-XLA-02059] c33 N71-24276
- Automatically charging battery of electric
storage cells
[NASA-CASE-XNP-04758] c03 N71-24605
- Electric motor control system with pulse width
modulation for providing automatic null
seeking servo
[NASA-CASE-XNP-05195] c10 N71-24861
- Indexing mechanism for cathode array
substitution in electron beam tube
[NASA-CASE-NPO-10625] c09 N71-26182
- Voltage range selection apparatus for sensing
and applying voltages to electronic
instruments without loading signal source
[NASA-CASE-XMS-06497] c14 N71-26244
- Automated fluid chemical analyzer for
microchemical analysis of small quantities of
liquids by use of selected reagents and
analyzer units
[NASA-CASE-XNP-09451] c06 N71-26754
- Automatic control device for regulating inlet
water temperature of liquid cooled spacesuit
[NASA-CASE-MSC-13917-1] c05 N72-15098
- Optimal control system for automatic speed
regulation of electric driven motor vehicle
[NASA-CASE-NPO-11210] c11 N72-20244

AUTOMATIC CONTROL VALVES

SUBJECT INDEX

Plotter device for automatically drawing equipotential lines on sheet of resistance paper
[NASA-CASE-NPO-11134] c09 N72-21246

Automatic shunting of ion thruster magnetic field when thruster is not operating
[NASA-CASE-LEW-10835-1] c28 N72-22771

Automatic temperature control for liquid cooled space suit
[NASA-CASE-ARC-10599-1] c05 N73-26071

Speed control system for dc motor equipped with brushless Hall effect device
[NASA-CASE-MFS-20207-1] c09 N73-32107

Programmable physiological infusion
[NASA-CASE-ARC-10447-1] c52 N74-22771

Automatically operable self-leveling load table
[NASA-CASE-MFS-22039-1] c09 N75-12968

Automatic focus control for facsimile cameras
[NASA-CASE-LAR-11213-1] c35 N75-15014

Traffic survey system --- using optical scanners
[NASA-CASE-MFS-22631-1] c66 N76-19888

Automotive gas turbine fuel control
[NASA-CASE-LPW-12785-1] c37 N77-13426

Method for producing solar energy panels by automation
[NASA-CASE-LEW-12541-1] c44 N77-22615

Automatic visual inspection system for microelectronics
[NASA-CASE-NPO-13282] c38 N78-17396

Automatic fluid dispenser
[NASA-CASE-ARC-10820-1] c35 N78-19466

AUTOMATIC CONTROL VALVES

Ambient atmospheric pressure sensing device for determining altitude of flight vehicles
[NASA-CASE-XLA-00128] c15 N70-37925

Describing metal valve pintle with encapsulated elastomeric body
[NASA-CASE-MSC-12116-1] c15 N71-17648

Semitoroidal diaphragm cavitating flow control valve
[NASA-CASE-INP-09704] c12 N71-18615

Reliability of automatic refilling valving device for cryogenic liquid systems
[NASA-CASE-NPO-11177] c15 N72-17453

Combined pressure regulator and shutoff valve
[NASA-CASE-NPO-13201-1] c37 N75-15050

Iodine generator for reclaimed water purification
[NASA-CASE-MSC-14632-1] c54 N78-14784

AUTOMATIC FREQUENCY CONTROL

System for phase locking onto carrier frequency signal located within receiver bandpass
[NASA-CASE-XGS-04994] c09 N69-21543

Audio signal processing system for noise surge elimination at low amplitude audio input
[NASA-CASE-MSC-12223-1] c07 N71-26181

Automatic frequency control device for providing frequency reference for voltage controlled oscillator
[NASA-CASE-KSC-10393] c09 N72-21247

Self-tuning electronic filter for maintaining constant bandwidth and center frequency gain
[NASA-CASE-ABC-10264-1] c09 N73-20231

AUTOMATIC GAIN CONTROL

Automatic gain control amplifier system
[NASA-CASE-XMS-05307] c09 N69-24330

Automatic measuring and recording of gain and zero drift characteristics of electronic amplifier
[NASA-CASE-XMS-05562-1] c09 N69-39986

Self-tuning electronic filter for maintaining constant bandwidth and center frequency gain
[NASA-CASE-ABC-10264-1] c09 N73-20231

AUTOMATIC TEST EQUIPMENT

Automated visual sensitivity tester for determining visual field sensitivity and blind spot size
[NASA-CASE-ABC-10329-1] c05 N73-26072

Automatic microbial transfer device
[NASA-CASE-LAR-11354-1] c35 N75-27330

Visual examination apparatus
[NASA-CASE-BE-ABC-10329-2] c52 N76-30793

Automated clinical system for chromosome analysis
[NASA-CASE-NPO-13913-1] c52 N77-19750

AUTOMATION

Automated multi-level vehicle parking system
[NASA-CASE-NPO-13058-1] c37 N77-22480

AUTOMOBILE FUELS

Hydrogen rich gas generator
[NASA-CASE-NPO-13342-2] c44 N76-29700

AUTORADIOGRAPHY

Method of post-process intensification of images on photographic films and plates
[NASA-CASE-MFS-23461-1] c35 N76-26449

AUXILIARY POWER SOURCES

Auxiliary power system for activity cooled aircraft
[NASA-CASE-LAR-11626-1] c34 N77-12332

Independent power generator
[NASA-CASE-LAR-11208-1] c07 N78-10096

AXES (REFERENCE LINES)

Test fixture for measuring moment of inertia of irregularly shaped body with multiple axes
[NASA-CASE-XGS-01023] c14 N71-22992

Mechanism for restraining universal joints to prevent separation while allowing bending, angulation, and lateral offset in any position about axis
[NASA-CASE-INP-02278] c15 N71-28951

AXES OF ROTATION

Unitary three-axis controller for flight vehicles within or outside atmosphere
[NASA-CASE-XFR-00181] c21 N70-33279

Proportional controller for regulating aircraft or spacecraft motion about three axes
[NASA-CASE-IAC-03392] c03 N70-41954

Electrical and electromechanical trigonometric computation assembly and space vehicle guidance system for aligning perpendicular axes of two sets of three-axes coordinate references
[NASA-CASE-XMF-00684] c21 N71-21688

Hand controller operable about three respectively perpendicular axes and capable of actuating signal generators for attitude control devices
[NASA-CASE-XMS-07487] c15 N71-23255

AXIAL COMPRESSION LOADS

Development and characteristics of device for indicating and recording magnitude of force applied in axial direction
[NASA-CASE-MSC-15626-1] c14 N72-25411

AXIAL FLOW TURBINES

Multistage multiple reentry axial flow reaction turbine with reverse flow reentry ducting
[NASA-CASE-XLE-00170] c15 N70-36412

Multistage, multiple reentry, single rotor, axial flow turbine
[NASA-CASE-XLE-00085] c28 N70-39895

AXIAL LOADS

Ball locking device which releases in response to small forces when subjected to high axial loads
[NASA-CASE-XMF-01371] c15 N70-41829

Method for measuring biaxial stress in a body subjected to stress inducing loads
[NASA-CASE-MFS-23299-1] c39 N77-28511

AXIAL STRESSES

Axially and radially controllable magnetic bearing
[NASA-CASE-GSC-11551-1] c37 N76-18459

Method for measuring biaxial stress in a body subjected to stress inducing loads
[NASA-CASE-MFS-23299-1] c39 N77-28511

AZIMUTH

Tracking mount for laser telescope employed in tracking large rockets and space vehicles to give information regarding azimuth and elevation
[NASA-CASE-MFS-14017] c14 N71-26627

Long range laser traversing system
[NASA-CASE-GSC-11262-1] c36 N74-21091

Magnetic heading reference
[NASA-CASE-LAR-11387-2] c04 N77-19056

AZINES

Synthesis of azine polymers for heat shields by azine-aromatic aldehyde reaction
[NASA-CASE-XMF-08656] c06 N71-11242

Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ABC-10592-1] c27 N74-21156

Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ABC-10592-2] c27 N76-32315

Catalytic trimerization of aromatic nitriles and triaryl-s-triazine ring cross-linked high temperature resistant polymers and copolymers made thereby
[NASA-CASE-LEW-12053-2] c23 N77-32244

AZO COMPOUNDS

Holding process for imidazopyrrolone polymers

[NASA-CASE-LAR-10547-1] c31 N74-13177

B**BACKGROUND NOISE**

Electronic background suppression field scanning sensor for detecting point source targets
[NASA-CASE-IGS-05211] c07 N69-39980

BACKGROUND RADIATION

Method and apparatus for background signal reduction in opto-acoustic absorption measurement
[NASA-CASE-NPO-13683-1] c35 N77-14411

BACKSCATTERING

Apparatus for measuring backscatter and transmission characteristics of sample segment of large spherical passive satellites
[NASA-CASE-XGS-02608] c07 N70-41678
Mossbauer spectrometer radiation detector
[NASA-CASE-LAR-11155-1] c35 N74-15091

BACKUPS

Flexible backup bar for welding awkwardly shaped structures
[NASA-CASE-XMP-00722] c15 N70-40204
Reliable electrical element heater using plural wire system and backup power sources
[NASA-CASE-NFS-21462-1] c33 N74-14935

BACTERIA

Decontamination of petroleum products with honey
[NASA-CASE-XMP-03835] c06 N71-23499
Portable tester for monitoring bacterial contamination by adenosine triphosphate light reaction
[NASA-CASE-GSC-10879-1] c14 N72-25413
Enzymatic luminescent bioassay method for determining bacterial levels in urine
[NASA-CASE-GSC-11092-2] c04 N73-27052
Lyophilized spore dispenser
[NASA-CASE-LAR-10544-1] c37 N74-13178
Method of detecting and counting bacteria
[NASA-CASE-GSC-11917-2] c51 N76-29891
Detection of microbial infection in blood and antibiotic determinations
[NASA-CASE-GSC-12045-1] c52 N77-18733
Method and apparatus for eliminating luminol interference material
[NASA-CASE-MSC-116260-1] c51 N78-18674

BACTERIOLOGY

Detection of bacteria in biological fluids and foods
[NASA-CASE-GSC-11533-1] c14 N73-13435
Application of luciferase assay for ATP to antimicrobial drug susceptibility
[NASA-CASE-GSC-12039-1] c51 N77-22794
Determination of antimicrobial susceptibilities of infected urines without isolation
[NASA-CASE-GSC-12046-1] c52 N77-26797
Automated single-slide staining device
[NASA-CASE-LAR-11649-1] c51 N77-27677

BAFFLES

Light radiation direction indicator with baffle of two parallel grids
[NASA-CASE-XMP-03930] c14 N69-24331
Light baffle with oblate hemispheroid surface and shading flange
[NASA-CASE-NPO-10337] c14 N71-15604
Flexible ring slosh damping baffle for spacecraft fuel tank
[NASA-CASE-LAR-10317-1] c32 N71-16103
Submerged fuel tank baffles to prevent sloshing in liquid propellant rocket flight
[NASA-CASE-XLA-04605] c32 N71-16106
Floating baffle for tank drain
[NASA-CASE-RSC-10639] c15 N73-26472
System for the measurement of ultra-low stray light levels --- light shields and baffles
[NASA-CASE-NFS-23513-1] c74 N77-14842

BAGS

Pecal waste disposal container
[NASA-CASE-XHS-06761] c05 N69-23192

BALANCE

Thermoprotective device for balances
[NASA-CASE-XAC-00648] c14 N70-40400
Device for monitoring a change in mass in varying gravimetric environments
[NASA-CASE-NFS-21556-1] c35 N74-26945

BALANCING

Automatic balancing device for use on frictionless supported attitude-controlled

test platforms

[NASA-CASE-LAR-10774] c10 N71-13545
Force balanced throttle valve for fuel control in rocket engines
[NASA-CASE-NPO-10808] c15 N71-27432
Static force balancing system attached to lifting body
[NASA-CASE-LAB-10348-1] c11 N73-12264

BALL BEARINGS

Combination guide and rotary bearing for freely moving shaft
[NASA-CASE-XLA-00013] c15 N71-29136
Method for reducing mass of ball bearings for long life operation at high speed
[NASA-CASE-LFW-10856-1] c15 N72-22490
Low mass rolling element bearing assembly
[NASA-CASE-LFW-11087-1] c15 N73-30458
Hollow rolling element bearings
[NASA-CASE-LFW-11087-3] c37 N74-21064
Drilled ball bearing with a one piece anti-tipping cage assembly
[NASA-CASE-LFW-11925-1] c37 N75-31446
Spherical bearing
[NASA-CASE-NFS-23447-1] c37 N77-11403

BALLAST (MASS)

Inflatable stabilizing system for use on life raft to reduce rocking and preclude capsizing
[NASA-CASE-MSC-12393-1] c02 N73-26006

BALLASTS (IMPERDANCES)

Apparatus for ballasting high frequency transistors
[NASA-CASE-XGS-05003] c09 N69-24318

BALLISTICS

Fiber modified polyurethane foam for ballistic protection
[NASA-CASE-ARC-10714-1] c27 N76-15310

BALLOON SOUNDING

Apparatus for controlling the temperature of balloon-borne equipment
[NASA-CASE-GSC-11620-1] c34 N74-23039

BALLOONS

Development and characteristics of hot air balloon deceleration and recovery system
[NASA-CASE-XLA-06824-2] c02 N71-11037
Inflation system for balloon type satellites
[NASA-CASE-XGS-03351] c31 N71-16081
System for controlling torque buildup in suspension of gondola connected to balloon by parachute shroud lines
[NASA-CASE-GSC-11077-1] c02 N73-13008

BALLS

Two axis flight controller with potentiometer control shafts directly coupled to rotatable ball members
[NASA-CASE-XFR-04104] c03 N70-42073

BANDPASS FILTERS

Helical coaxial resonator RF filter
[NASA-CASE-IGS-02816] c07 N69-24323
Phase locked demodulator with bandwidth switching amplifier circuit
[NASA-CASE-XMP-01107] c10 N71-28859
Signal to noise ratio determination circuit using bandpass limiter
[NASA-CASE-GSC-11239-1] c10 N73-25241
Selective bandpass resonators using bandstop resonator pairs for microwave frequency operation
[NASA-CASE-GSC-10990-1] c09 N73-26195
Dichroic plate --- as bandpass filters
[NASA-CASE-NPO-13506-1] c35 N76-15435
Notch filter
[NASA-CASE-NFS-23303-1] c32 N77-18307

BANDWIDTH

Improvements in receiver of narrow bandwidth television system
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BINOCULARS

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[NASA-CASE-XMS-10269] c05 N71-24147
Miniature ingestible telemeter devices to
measure deep-body temperature
[NASA-CASE-ARC-10583-1] c52 N76-29894

BODY VOLUME (BIOLOGY)
Whole body measurement systems --- for
weightlessness simulation
[NASA-CASE-MSC-13972-1] c52 N74-10975

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[NASA-CASE-PRC-10092-1] c05 N77-31135

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Vapor generating boiler system for turbine motor
[NASA-CASE-XLE-00785] c33 N71-16104
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and shell heat exchanger
[NASA-CASE-NPO-10831] c33 N72-20915

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transformer device between two bolometers for
measuring insertion loss of test component
[NASA-CASE-XNP-01193] c10 N71-16057
Thin film capacitive bolometer and capacitance
temperature interchange sensor
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Patent data on gas actuated bolt disconnect
assembly
[NASA-CASE-XLA-00326] c03 N70-34667
Bolt-latch mechanism for releasing despin
weights from space vehicle
[NASA-CASE-XLA-00679] c15 N70-38601
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threaded boss
[NASA-CASE-XNP-04966] c14 N71-17658
Split nut and bolt separation device
[NASA-CASE-XNP-06914] c15 N71-21489
Device for securing together structural members
with axially stretched bolt and nut
[NASA-CASE-GSC-11149-1] c15 N73-30457

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Silver chloride use in technique for fusion
bonding of graphite to silver, glass,
ceramics, and certain other metals
[NASA-CASE-IGS-00963] c15 N69-39735
Bonded joint and method --- for reducing peak
shear stress in adhesive bonds
[NASA-CASE-LAR-10900-1] c37 N74-23064
Bonding method in the manufacture of continuous
regression rate sensor devices
[NASA-CASE-LAR-10337-1] c24 N75-30260
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bonding of thermal insulation to metallic
plates or structural parts
[NASA-CASE-MSC-14182-1] c27 N76-14264
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mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-3] c24 N76-19234

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[NASA-CASE-MPS-20998-1] c35 N75-12271
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bone tissue using a two level energy source
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BOOMS (EQUIPMENT)

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Collapsible antenna boom and coaxial transmission line having inflatable inner tube [NASA-CASE-NPS-20068] c07 N71-27191

Extendable, self-deploying boom apparatus [NASA-CASE-GSC-10566-1] c15 N72-18477

Design and characteristics of mechanically extended and telescoping boom on crane assembly [NASA-CASE-NPO-11118] c03 N72-25021

BOOSTER RECOVERY

Techniques for recovery of multistage rocket vehicles by providing lifting surfaces on individual sections [NASA-CASE-XMP-00389] c31 N70-34176

Recoverable, reusable single stage booster capable of injecting large payloads into circular earth orbit [NASA-CASE-XMP-01973] c31 N70-41588

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Segmented back-up bar for butt welding large tubular structures such as rocket booster bodies or tanks [NASA-CASE-XMP-00640] c15 N70-39924

Recoverable, reusable single stage booster capable of injecting large payloads into circular earth orbit [NASA-CASE-XMP-01973] c31 N70-41588

BOOTS (FOOTWEAR)

Walking boot assembly [NASA-CASE-ARC-11101-1] c54 N78-17675

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Automatic controlled drive mechanism for portable boring bar [NASA-CASE-XLA-03661] c15 N71-33518

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Catalyst for increased growth of boron carbide crystal whiskers [NASA-CASE-XHQ-03903] c15 N69-21922

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Boron trifluoride coatings for thermoplastic materials [NASA-CASE-ARC-11057-1] c27 N77-26308

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Energy dissipating shock absorbing system for land payload recovery or vehicle braking [NASA-CASE-XLA-00754] c15 N70-34850

Automatic braking device for rapidly transferring humans or materials from elevated location [NASA-CASE-XKS-07814] c15 N71-27067

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Broadband frequency discriminator with resistive captive inductive networks [NASA-CASE-NPO-10096] c07 N71-24583

Broadband microwave waveguide window to compensate dielectric material filling

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improved high gain broadband output
[NASA-CASE-NFO-10548] c16 N71-24831
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phase stability
[NASA-CASE-XLA-03893] c10 N71-27271
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broadband communication
[NASA-CASE-GSC-11046-1] c07 N73-28013
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[NASA-CASE-XNP-10854] c10 N71-26331
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[NASA-CASE-NFO-13217-1] c32 N75-26194
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[NASA-CASE-NFO-13237-1] c44 N76-18641
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[NASA-CASE-XNP-01016] c26 N71-17818
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tubing material
[NASA-CASE-XLA-01019] c15 N70-40156
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diameter specimens during compression tests
[NASA-CASE-LAR-10440-1] c14 N73-32323
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storage availability, and data received from
source
[NASA-CASE-XNP-04162-1] c08 N70-34675
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buffer storage and timing device for magnetic
tape recording of PCM data and timing
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[NASA-CASE-NFO-12107] c08 N71-27255
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[NASA-CASE-KSC-10397] c08 N72-25206
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[NASA-CASE-GSC-12334-1] c36 N78-15474
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[NASA-CASE-XNP-01899] c31 N70-41948
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Inflatable radar reflector unit - lightweight,
highly reflective to electromagnetic
radiation, and adaptable for erection and
deployment with minimum effort and time
[NASA-CASE-XMS-00893] c07 N70-40063
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control of solid propellants
[NASA-CASE-XLE-03494] c27 N71-21819
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rate and flammability of materials
[NASA-CASE-XMS-09690] c33 N72-25913
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[NASA-CASE-XHQ-01897] c28 N70-35381
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engines and related configurations
[NASA-CASE-XLE-00144] c28 N70-34860
Segmented back-up bar for butt welding large
tubular structures such as rocket booster
bodies or tanks
[NASA-CASE-XNP-00640] c15 N70-39924
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[NASA-CASE-XMS-01330] c37 N75-27376
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[NASA-CASE-XGS-04999] c09 N69-24317
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[NASA-CASE-XGS-02816] c07 N69-24323
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[NASA-CASE-NFS-20935] c09 N71-34212
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solar cells in solar battery array
[NASA-CASE-GSC-10344-1] c03 N72-27053
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[NASA-CASE-GSC-10135] c33 N78-17296

C

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Design and characteristics of device for showing
amount of cable payed out from winch and load
imposed
[NASA-CASE-MSC-12052-1] c15 N71-24599
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Cable guide and restraint device for reefing
tubes in uniform manner
[NASA-CASE-LAR-10129-1] c15 N73-25512
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[NASA-CASE-NFS-22636-1] c37 N76-22540
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ionizing radiation fields
[NASA-CASE-XNP-00738] c09 N70-38201
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[NASA-CASE-XLA-02332] c32 N71-17609
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drawers or racks holding electronic equipment
and cabinet assembly housing drawers or racks
[NASA-CASE-XNP-07587] c15 N71-18701
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tie-down cord
[NASA-CASE-XGS-02554] c31 N71-21064
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wires, ropes, or cables
[NASA-CASE-XPR-05421] c15 N71-22994
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[NASA-CASE-MSC-13512-1] c15 N72-22485
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[NASA-CASE-LAR-10129-2] c37 N74-20063
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Ultrasonic bone densitometer
[NASA-CASE-NFS-20994-1] c35 N75-12271
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Bonded solid lubricant coatings of calcium
fluoride and binder for high temperature
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[NASA-CASE-XMS-00259] c18 N70-36400
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composite lubricant for bearings or seals
[NASA-CASE-XLE-08511-2] c18 N71-16105
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[NASA-CASE-ABC-11053-1] c25 N77-29252
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[NASA-CASE-MSC-12617-1] c35 N76-29552
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calibrating displacement transducer for
measuring magnitude and frequency of
displacement of bodies
[NASA-CASE-XLA-00781] c09 N71-22999
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in calibrating pressure gages

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[NASA-CASE-XKS-10804] c05 N71-24606
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[NASA-CASE-XLA-03410] c16 N71-25914
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[NASA-CASE-XLA-11154] c07 N72-21117
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and partial pressures in ultrahigh vacuum region
[NASA-CASE-XGS-07752] c14 N73-30390
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[NASA-CASE-LAR-10910-1] c35 N74-13132
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[NASA-CASE-LAR-10862-1] c35 N74-15092
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utilizing rotating shaft
[NASA-CASE-HFS-21045-1] c35 N75-15932
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changes in acoustic attenuation and phase
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[NASA-CASE-LAR-11435-1] c35 N76-15432
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[NASA-CASE-LAR-11500-1] c35 N76-24523
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[NASA-CASE-KSC-11035-1] c33 N77-20343

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with integral heat sink for maintenance of
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[NASA-CASE-XMF-04208] c33 N71-29051
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Ni-Cd batteries
[NASA-CASE-GSC-11434-1] c34 N74-27859

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Electrically operated rotary shutter for
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[NASA-CASE-XNP-00637] c14 N70-40273
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shutter and expansion tube applications
[NASA-CASE-XLA-03660] c15 N71-21060
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operable, optical shutter for use as focal
plane shutter for transmitting single
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[NASA-CASE-NPO-10758] c14 N73-14427
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rotary inertia damper and stop plate assembly
--- for use with cameras mounted in satellites
[NASA-CASE-GSC-11560-1] c33 N74-20861

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Mechanism for measuring nanosecond time
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streak camera
[NASA-CASE-XLA-01987] c23 N71-23976
Camera adapter design for image magnification
including lens and illuminator
[NASA-CASE-XMF-03844-1] c14 N71-26474
Longitudinal film gate and lock mechanism for
securing film in motion picture cameras under
vibration and high acceleration loads
[NASA-CASE-LAR-10686] c14 N71-28935
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[NASA-CASE-NPO-10417] c16 N71-33410
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camera
[NASA-CASE-NPO-11002] c14 N72-22441
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camera lens aperture and focus setting
[NASA-CASE-HSC-12363-1] c14 N73-26431
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preventing film overexposure in oscilloscope
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[NASA-CASE-LAR-10319-1] c14 N73-32322
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[NASA-CASE-HFS-21087-1] c35 N74-17153
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[NASA-CASE-LAR-11213-1] c35 N75-15014
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[NASA-CASE-LAR-11207-1] c35 N75-19613
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holographic camera system

[NASA-CASE-HFS-22537-1] c35 N75-27328
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[NASA-CASE-HFS-22517-1] c35 N76-18402
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[NASA-CASE-GSC-11063-1] c37 N77-27400

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nozzle in movable canard surface or fin
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[NASA-CASE-XLF-03583] c31 N71-17629

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[NASA-CASE-GSC-12081-2] c52 N77-26796

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[NASA-CASE-ARC-10813-1] c27 N76-16230

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canisters under high vacuum conditions
[NASA-CASE-XLA-01446] c15 N71-21528
Extrusion can for extruding ceramics under heat
and pressure
[NASA-CASE-NPO-10812] c15 N73-13464
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[NASA-CASE-NPO-14014-1] c37 N77-31501

CANTILEVER BEAMS
Pneumatic cantilever beams and platform for
space erectable structure
[NASA-CASE-XLA-01731] c32 N71-21045

CANTILEVER MEMBERS
Deployable cantilever support for deploying
solar cell arrays aboard spacecraft and
reducing transient loading
[NASA-CASE-NPO-10883] c31 N72-22874
Miniature biaxial strain transducer
[NASA-CASE-LAR-11648-1] c35 N77-14407

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Capacitance measuring device for determining
flare accuracy on tapered tubes
[NASA-CASE-XKS-03495] c14 N69-39785
Device for measuring two orthogonal components
of force with gallium flotation of measuring
target for use in vacuum environments
[NASA-CASE-XAC-04885] c14 N71-23790
Thin film capacitive bolometer and capacitance
temperature interchange sensor
[NASA-CASE-NPO-10607] c09 N71-27232
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constituent of two phase fluid by sensing
dielectric constant
[NASA-CASE-HFS-21629] c14 N72-22442
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[NASA-CASE-LAR-11170-1] c32 N74-12843
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network
[NASA-CASE-NPO-11948-1] c33 N74-32712
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[NASA-CASE-NPO-13792-1] c35 N77-32455

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Electric discharge apparatus for
electrohydraulic explosive forming
[NASA-CASE-XMF-00375] c15 N70-34249
Extra-long monostable multivibrator employing
bistable semiconductor switch to allow
charging of timing circuit
[NASA-CASE-XGS-00381] c09 N70-34819
Feedback integrating circuit with grounded
capacitor for signal processing
[NASA-CASE-XAC-10607] c10 N71-23669

CAPACITORS
Temperature sensitive capacitor device for
detecting very low intensity infrared radiation
[NASA-CASE-XNP-09750] c14 N69-39937
Energy source with tantalum capacitors in
parallel and miniature silver oxide button
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spacecraft and rocket vehicles
[NASA-CASE-LAR-10367-1] c03 N70-26817
Electrical power system for space flight
vehicles operating over extended periods
[NASA-CASE-XMF-00517] c03 N70-34157

- Capacitor for measuring density of compressible fluid in liquid, gas, or liquid and gas phases
[NASA-CASE-XLE-00143] c14 N70-36618
- Capacitor sandwich structure containing metal sheets of known thickness for counting penetration rates of meteoroids
[NASA-CASE-XLE-01246] c14 N71-10797
- Capacitor fabrication by solidifying mixture of ferromagnetic metal particles, nonferromagnetic particles, and dielectric material
[NASA-CASE-LEW-10364-1] c09 N71-13522
- Mechanism for measuring nanosecond time differences between luminous events using streak camera
[NASA-CASE-XLA-01987] c23 N71-23976
- Circuit for monitoring power supply by ripple current indication
[NASA-CASE-KSC-10162] c09 N72-11225
- Thermoelectric radioener meter using polymer film as capacitor
[NASA-CASE-ARC-10138-1] c14 N72-24477
- Material compositions and processes for developing dielectric thick films used in microcircuit capacitors
[NASA-CASE-LAR-10294-1] c26 N72-28762
- Micrometeoroid analyzer using arrays of interconnected capacitors and ion detector
[NASA-CASE-ARC-10443-1] c14 N73-20477
- Insulated electrocardiographic electrodes --- without paste electrolyte
[NASA-CASE-MSC-14339-1] c05 N75-24716
- High temperature beryllium oxide capacitor
[NASA-CASE-LEW-11938-1] c33 N76-15373
- Mechanical capacitor
[NASA-CASE-GSC-12030-1] c44 N76-30652
- A regulated high efficiency, lightweight capacitor-diode multiplier DC to DC converter
[NASA-CASE-LEW-12791-1] c33 N77-24385
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- Capillary radiator for carrying heat transfer liquid in planetary spacecraft structures
[NASA-CASE-XLE-03307] c33 N71-14035
- Lubrication for bearings by capillary action from oil reservoir of porous material
[NASA-CASE-XNP-03972] c15 N71-23048
- Soldering device particularly suited to making high quality wiring joints for aerospace engineering utilizing capillary attraction to regulate flow of solder
[NASA-CASE-XLA-08911] c15 N71-27214
- Capillary flow weld-bonding
[NASA-CASE-LAR-11726-1] c37 N76-27568
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- Tubular flow restrictor for gas flow control in pipeline
[NASA-CASE-NPO-10117] c15 N71-15608
- Development of liquid separating system using capillary device connected to flexible bladder storage chamber
[NASA-CASE-XMS-13052] c14 N71-20427
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[NASA-CASE-NPO-13544-1] c36 N76-18428
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[NASA-CASE-NPO-10373] c03 N71-18698
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- Decantation of petroleum products with honey
[NASA-CASE-XNP-03835] c06 N71-23499
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- Water cooled contactors for holding rotating carbon arc anode
[NASA-CASE-XMS-03700] c15 N69-24266
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- Vapor deposited laminated nitride-silicon coating for corrosion prevention of carbonaceous surfaces
[NASA-CASE-XLA-00284] c15 N71-16075
- CARBON DIOXIDE**
- Carbon dioxide purge systems to prevent condensation in spaces between cryogenic fuel tanks and hypersonic vehicle skin
[NASA-CASE-XLA-01967] c31 N70-42015
- Fast response miniature carbon dioxide detector with no moving parts for measuring concentration in any atmosphere
[NASA-CASE-MSC-13332-1] c14 N72-21408
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- Repetitively pulsed wavelength selective carbon dioxide laser
[NASA-CASE-ERC-10178] c16 N71-24832
- Performance of ac power supply developed for CO₂ laser system
[NASA-CASE-GSC-11222-1] c16 N73-32391
- Stark-effect modulation of CO₂ laser with NH₂D
[NASA-CASE-NPO-11945-1] c36 N76-18427
- CARBON DIOXIDE REMOVAL**
- Catalyst cartridge for carbon dioxide reduction unit
[NASA-CASE-LAR-10551-1] c25 N74-12813
- Regenerable device for scrubbing breathable air of CO₂ and moisture without special heat exchanger equipment
[NASA-CASE-MSC-14771-1] c54 N77-32722
- CARBON MONOXIDE**
- Carbon monoxide monitor --- using real time operation
[NASA-CASE-MFS-22060-1] c35 N75-29380
- CARBONATES**
- Chemical and physical properties of synthetic polyurethane polymer prepared by reacting hydroxy carbonate with organic diisocyanate
[NASA-CASE-MFS-10512] c06 N73-30099
- CARBOXYL GROUP**
- Carboxyl terminated polyester prepolymers and foams produced from prepolymers and materials
[NASA-CASE-NPO-10596] c06 N71-25929
- CARBOXYLIC ACIDS**
- Stable polyimide synthesis from mixtures of monomeric diamines and polycarboxylic acid esters
[NASA-CASE-LEW-11325-1] c06 N73-27980
- Fluorinated esters of polycarboxylic acid and lubricating compositions for use at extreme temperature
[NASA-CASE-MFS-21040-1] c06 N73-30098
- CARCINOGENS**
- Spectrophotofluorometer with 3-dimensional display to identify fluorescence spectra of carcinogenic and noncarcinogenic hydrocarbons
[NASA-CASE-XGS-01231] c14 N70-41676
- CARDIAC VENTRICLES**
- Contour detector and data acquisition system for the left ventricular outline
[NASA-CASE-ARC-10985-1] c52 N77-17701
- CARDIOGRAPHY**
- Digital cardiometer incorporating circuit for measuring heart rate of subject over predetermined portion of one minute also converting rate to beats per minute
[NASA-CASE-XMS-02399] c05 N71-22896
- Reference apparatus for medical ultrasonic transducer
[NASA-CASE-ARC-10753-1] c54 N75-27760
- CARDIOLOGY**
- Development of instantaneous reading tachometer for measuring electrocardiogram signal rate
[NASA-CASE-MFS-20418] c14 N73-24473
- Myocardium wall thickness transducer and measuring method
[NASA-CASE-NPO-13644-1] c52 N76-29895
- CARDIOTACHOMETERS**
- Digital computing cardiometer
[NASA-CASE-MFS-20284-1] c52 N74-12778
- CARDIOVASCULAR SYSTEM**
- Conditioning suit for normal function of astronaut cardiovascular system in gravity environment
[NASA-CASE-XLA-02898] c05 N71-20268
- Ear oximeter for monitoring blood oxygenation and pressure, pulse rate, and pressure pulse curve, using dc and ac amplifiers
[NASA-CASE-XAC-05422] c04 N71-23185
- Catheter tip force transducer for cardiovascular research
[NASA-CASE-NPO-13643-1] c52 N76-29896
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- Demodulator for simultaneous demodulation of two modulating ac signal carriers close in frequency
[NASA-CASE-XNP-01160] c07 N71-11298

Automatic carrier acquisition system for phase locked loop receiver
[NASA-CASE-NPO-11628-1] c07 N73-30113

Demodulator for carrier transducers
[NASA-CASE-NUC-10107-1] c33 N74-17930

Decision feedback loop for tracking a polyphase modulated carrier
[NASA-CASE-NPO-13103-1] c32 N74-20811

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[NASA-CASE-NPO-13909-1] c33 N77-17358

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Variable frequency subcarrier oscillator with temperature compensation
[NASA-CASE-XNP-03916] c09 N71-28810

Modulator for tone and binary signals --- phase of modulation of tone and binary signals on carrier waves in communication systems
[NASA-CASE-GSC-11743-1] c32 N75-24981

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Sealed storage container for channel carriers with mounted miniature electronic components
[NASA-CASE-HFS-20075] c09 N71-26133

Apparatus for conducting flow electrophoresis in the substantial absence of gravity
[NASA-CASE-HFS-21394-1] c34 N74-27744

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[NASA-CASE-XLA-01401] c15 N71-21179

CARTRIDGES

Tape cartridge with high capacity storage of endless-loop magnetic tape
[NASA-CASE-XGS-00769] c14 N70-41647

Endless loop tape transport mechanism for driving and tensioning recording medium in magnetic tape recorder
[NASA-CASE-XGS-01223] c07 N71-10609

Catalyst cartridge for carbon dioxide reduction unit
[NASA-CASE-LAR-10551-1] c25 N74-12813

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Reversible ring counter using cascaded single silicon controlled rectifier stages
[NASA-CASE-XGS-01473] c09 N71-10673

Synchronous dc direct-drive system comprising multiple-loop hybrid control system controlling load directly connected to actuator
[NASA-CASE-GSC-10065-1] c10 N71-27136

Multiloop RC active filter network with low parameter sensitivity and low amplifier gain
[NASA-CASE-ARC-10192] c09 N72-21245

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Cascade plug nozzle --- for jet noise reduction
[NASA-CASE-LAR-11674-1] c07 N76-18117

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Nonmagnetic hermetically sealed battery case made of epoxy resin and woven glass tape for use with electrochemical cells in spacecraft
[NASA-CASE-XGS-00886] c03 N71-11053

Protected isotope heat source --- for atmospheric reentry protection and heat transmission to spacecraft
[NASA-CASE-LEW-11227-1] c73 N75-30876

CASSEGRAIN ANTENNAS

Cassegrain antenna subreflector flange for suppressing ground noise and increasing antenna transmitting efficiency
[NASA-CASE-XNP-00683] c09 N70-35425

Design and operation of multi-feed cone Cassegrain antenna
[NASA-CASE-NPO-10539] c07 N71-11285

Synchronous detection system for detecting weak radio astronomical signals
[NASA-CASE-XNP-09832] c30 N71-23723

Dual frequency feed systems for Cassegrainian antennas
[NASA-CASE-NPO-13091-1] c09 N73-12214

Low loss dichroic plate
[NASA-CASE-NPO-13171-1] c32 N74-11000

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Hydraulic apparatus for casting and molding of liquid polymers
[NASA-CASE-XNP-07659] c06 N71-22975

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[NASA-CASE-LEW-11169-1] c37 N76-23570

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Unit for generating thrust from catalytic decomposition of hydrogen peroxide, for high altitude aircraft or spacecraft reaction control
[NASA-CASE-XMS-00583] c28 N70-38504

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[NASA-CASE-NPO-13566-1] c25 N77-32255

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Catalyst for increased growth of boron carbide crystal whiskers
[NASA-CASE-XHQ-03903] c15 N69-21922

Catalyst bed element removing tool
[NASA-CASE-XFR-00811] c15 N70-36901

Catalyst bed ignition system for hydrazine propellants
[NASA-CASE-XNP-00876] c28 N70-41311

Development of device for detecting hydrogen in ambient environments
[NASA-CASE-HFS-11537] c14 N71-20442

Catalyst cartridge for carbon dioxide reduction unit
[NASA-CASE-LAR-10551-1] c25 N74-12813

Process for removing sulfur dioxide from gas streams --- using iron as a catalyst
[NASA-CASE-MSC-16299-1] c45 N77-31668

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Transducer circuit design with single coaxial cable for input and output connections including incorporation into miniaturized catheter transducer
[NASA-CASE-ARC-10132-1] c09 N71-24597

Catheter tip force transducer for cardiovascular research
[NASA-CASE-NPO-13643-1] c52 N76-29896

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Cathode ray oscilloscope for analyzing electrical waveforms representing amplitude distribution of time function
[NASA-CASE-XNP-01383] c09 N71-10659

Cathode ray tube system for displaying ones and zeros in binary wave train
[NASA-CASE-XGS-04987] c08 N71-20571

Indexing mechanism for cathode array substitution in electron beam tube
[NASA-CASE-NPO-10625] c09 N71-26182

Color television system utilizing single gun current sensitive color cathode ray tube
[NASA-CASE-ERC-10098] c09 N71-28618

Cathode ray tube with coating of phosphor and cobalt oxides
[NASA-CASE-ERC-10468] c09 N72-20206

Digital video system for displaying image and alphanumeric data on cathode ray tube
[NASA-CASE-NPO-11342] c09 N72-25248

Switching circuit for control of cathode ray tube beam with fast rise time for output signal
[NASA-CASE-KSC-10647-1] c10 N72-31273

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[NASA-CASE-ERC-10350] c14 N73-20474

Very high intensity light source using a cathode ray tube --- electron beams
[NASA-CASE-XNP-01296] c33 N75-27250

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[NASA-CASE-LEW-10814-1] c28 N70-35422

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[NASA-CASE-XLE-04501] c09 N71-23190

Design and characteristics of heat activated electric cell with anode made from one or more alkali metals and cathode made from oxidizing material
[NASA-CASE-LEW-11358] c03 N71-26084

Characteristics of ion rocket engine with combination keeper electrode and electron baffle
[NASA-CASE-NPO-11880] c28 N73-24783

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CATIONS

Water insoluble, cationic permselective membrane
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[NASA-CASE-XNP-09704] c12 N71-18615

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Black body radiometer having isothermally surrounded cavity for ultraviolet, visible, and infrared radiation
[NASA-CASE-NPO-10810] c14 N71-27323

Method for coating through-holes in ceramic substrates used in fabricating miniaturized electronic circuits
[NASA-CASE-XNP-05999] c15 N71-29032

Soil burrowing mole apparatus
[NASA-CASE-XNP-07169] c15 N73-32362

Method of constructing dashed ion thruster grids to provide hole array spacing compensation
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[NASA-CASE-XGS-02816] c07 N69-24323

Semiconductor in resonant cavity for improving signal to noise ratio of communication receiver
[NASA-CASE-MSC-12259-1] c07 N70-12616

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[NASA-CASE-XNP-00449] c14 N70-35220

Holder for high frequency crystal resonators
[NASA-CASE-INP-03637] c15 N71-21311

Superconductive resonant cavity for improved signal to noise ratio in communication signal
[NASA-CASE-MSC-12259-2] c07 N72-33146

Infrared tunable dye laser with nonlinear wavelength mixing crystal in optical cavity
[NASA-CASE-ARC-10463-1] c09 N73-32111

Tunable cavity resonator with ramp shaped supports
[NASA-CASE-HQN-10790-1] c36 N74-11313

A laser apparatus
[NASA-CASE-GSC-12237-1] c36 N78-10445

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Device for determining relative angular position of spacecraft and radiating celestial body
[NASA-CASE-GSC-11444-1] c14 N73-28490

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[NASA-CASE-MSC-12593-1] c17 N76-21250

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Development of star intensity measuring system which minimizes effects of outside interference
[NASA-CASE-XNP-06510] c14 N71-23797

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Heat activated emf cells with aluminum anode
[NASA-CASE-LEW-11359] c03 N71-28579

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[NASA-CASE-LEW-11359-2] c03 N72-20034

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[NASA-CASE-LEW-12220-1] c44 N77-14581

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Process for control of cell division
[NASA-CASE-LAR-10773-3] c51 N77-25769

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Separation cell with permeable membranes for fluid mixture component separation
[NASA-CASE-IMS-02952] c18 N71-20742

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System for and method of freezing biological tissue
[NASA-CASE-GSC-12173-1] c52 N77-27693

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Centrifuge mounted motion simulator with elevator mechanism
[NASA-CASE-XAC-00399] c11 N70-34815

Liquid-gaseous centrifugal separator for weightlessness environment
[NASA-CASE-XLA-00415] c15 N71-16079

Centrifugal lyophobic separator
[NASA-CASE-LAR-10194-1] c34 N74-30608

Fluid control apparatus and method
[NASA-CASE-LAR-11110-1] c34 N75-26282

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Plasma spraying gun for forming diffusion bonded metal or ceramic coatings on substrates
[NASA-CASE-XLE-01604-2] c15 N71-15610

Method of forming ceramic to metal seals impervious to gaseous and liquid mercury at high temperature
[NASA-CASE-XNP-01263-2] c15 N71-26312

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[NASA-CASE-XLA-03105] c15 N69-27483

Unfired-ceramic, highly reflective composite insulation for large launch vehicles
[NASA-CASE-XNP-01030] c18 N70-41583

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[NASA-CASE-MPS-14253] c33 N71-24858

Cermet for nuclear fuel constructed by pressing metal coated ceramic particles in die at temperature to cause bonding of metal coatings, and tested for thermal stability
[NASA-CASE-LEW-10219-1] c18 N71-28729

Two-component ceramic coating for silica insulation
[NASA-CASE-MSC-14270-1] c27 N76-22377

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[NASA-CASE-MSC-14270-2] c27 N76-23426

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Cermet for nuclear fuel constructed by pressing metal coated ceramic particles in die at temperature to cause bonding of metal coatings, and tested for thermal stability
[NASA-CASE-LEW-10219-1] c18 N71-28729

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Transpiration cooled turbine blade made from metallic or ceramic wires
[NASA-CASE-XLE-00020] c15 N70-33226

Characteristics of foamed-in-place ceramic refractory insulating material and method of fabrication
[NASA-CASE-XGS-02435] c18 N71-22998

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[NASA-CASE-XNP-00597] c18 N71-23088

Method for coating through-holes in ceramic substrates used in fabricating miniaturized electronic circuits
[NASA-CASE-XNP-05999] c15 N71-29032

Extrusion can for extruding ceramics under heat and pressure
[NASA-CASE-NPO-10812] c15 N73-13464

Thermal shock resistant hafnia ceramic materials
[NASA-CASE-LAR-10894-1] c18 N73-14584

Insulation foil and method of making
[NASA-CASE-LEW-11484-2] c24 N75-14839

Improved nozzle for use with abrasive and/or corrosive materials
[NASA-CASE-NPO-13823-1] c37 N77-17466

Thermal insulation attaching means --- adhesive bonding of felt vibration isolators under ceramic tiles
[NASA-CASE-MSC-12619-2] c16 N77-31237

Thermal shock and erosion resistant tantalum carbide ceramic material
[NASA-CASE-LAR-11902-1] c27 N78-17206

High temperature resistant cermet and ceramic compositions --- for thermal resistant insulators and refractory coatings
[NASA-CASE-NPO-13690-1] c27 N78-19302

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Freeze casting of metal ceramic and refractory compound powders into plastic slips
[NASA-CASE-XLE-00106] c15 N71-16076

Cermet for nuclear fuel constructed by pressing metal coated ceramic particles in die at temperature to cause bonding of metal coatings, and tested for thermal stability
[NASA-CASE-LEW-10219-1] c18 N71-28729

Cermet composition and method of fabrication --- heat resistant alloys and powders
[NASA-CASE-NPO-13120-1] c27 N76-15311

High temperature oxidation resistant cermet compositions
[NASA-CASE-NPO-13666-1] c27 N77-13217

High temperature resistant cermet and ceramic compositions --- for thermal resistant insulators and refractory coatings
[NASA-CASE-NPO-13690-1] c27 N78-19302

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Heated tungsten filter for removing oxygen impurities from cesium
[NASA-CASE-XNP-04262-2] c17 N71-26773

Method of producing I-123 --- by bombardment of cesium causing spallation
[NASA-CASE-LEW-11390-2] c25 N76-27383

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Oxygen-doped tantalum emitter for thermionic

- devices such as cesium vapor diodes
 [NASA-CASE-NFO-11138] c03 N70-34646
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 [NASA-CASE-NFO-10412] c09 N71-28421
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 produce propulsive vapor
 [NASA-CASE-XNF-00923] c28 N70-36802
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 [NASA-CASE-NFO-13308-1] c36 N75-30524
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 [NASA-CASE-LFW-12038-2] c44 N77-32595
- CHANNEL FLOW**
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 regeneratively cooled combustion chamber of
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 [NASA-CASE-XLE-00150] c28 N70-41818
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 in thermal conductive conduit with adaptive
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 [NASA-CASE-MSC-12084-1] c12 N71-17569
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 [NASA-CASE-XNP-03263] c09 N71-18843
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 [NASA-CASE-GSC-10614-1] c09 N72-11224
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 [NASA-CASE-GSC-11925-1] c33 N76-18353
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 [NASA-CASE-XNP-06028] c09 N71-23189
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 [NASA-CASE-XAC-05506-1] c24 N71-16095
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 [NASA-CASE-LFW-11192-1] c09 N73-13208
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 [NASA-CASE-GSC-11963-1] c33 N77-10429
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 discharge cycle of battery in synchronous orbit
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 Digital computer system for automatic prelaunch
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[NASA-CASE-XKS-04631] c10 N71-23663
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[NASA-CASE-XGS-01110] c07 N69-24334
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[NASA-CASE-XGS-00381] c09 N70-34819
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- CRUDE OIL**
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Cryogenic storage system for gases onboard spacecraft
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[NASA-CASE-XLE-03803-2] c15 N71-17651
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Development of thermal insulation material for insulating liquid hydrogen tanks in spacecraft
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Apparatus for aligning shadow shields and cryogenic storage tanks in outer space with the sun
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Cryogenic flux-gated magnetometer using superconductors
[NASA-CASE-XAC-02407] c14 N69-27423
Fuel tank pressure-relief device for venting cryogenic liquid vapors through tubes with porous plug
[NASA-CASE-XLE-00288] c15 N70-34247
Conical valve plug for use with reactive cryogenic fluids
[NASA-CASE-XLE-00715] c15 N70-34859
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[NASA-CASE-XGS-02441] c15 N70-41629
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[NASA-CASE-XLE-02998] c14 N70-42074
Automatic thermal switch for improving efficiency of cooling gases below 40 K
[NASA-CASE-INP-03796] c23 N71-15467
Describing apparatus for separating gas from cryogenic liquid under zero gravity and for venting gas from fuel tank
[NASA-CASE-XIF-00586] c15 N71-15968
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[NASA-CASE-XGS-01052] c14 N71-15992
Method and apparatus for producing fine particles in cryogenic liquid bath for gelled rocket propellants
[NASA-CASE-NPO-10250] c23 N71-16212
Superconducting alternator design with cryogenic fluid for cooling windings below critical temperature
[NASA-CASE-XLE-02823] c09 N71-23443
Flow angle sensor and remote readout system for use with cryogenic fluids
[NASA-CASE-XLE-04503] c14 N71-24864
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[NASA-CASE-KSC-10615] c15 N73-12486
Magnetocaloric pump --- for cryogenic fluids
[NASA-CASE-LEW-11672-1] c37 N74-27904
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[NASA-CASE-NPO-10619-1] c35 N77-21393
- CRYOGENIC GYROSCOPES**
Cryogenic gyroscope housing --- with annular disks for gas spin-up
[NASA-CASE-MFS-21136-1] c35 N74-18323
- CRYOGENIC MAGNETS**
Improved alternator with windings of superconducting materials acting as permanent magnet
[NASA-CASE-XLE-02824] c03 N69-39890
- CRYOGENIC ROCKET PROPELLANTS**
Quick-release coupling for fueling rocket vehicles with cryogenic propellants
[NASA-CASE-IMS-01985] c15 N71-10782
Hot-wire liquid level detector for cryogenic propellants
[NASA-CASE-XLE-00454] c23 N71-17802
Automatically reciprocating, high pressure pump for use in spacecraft cryogenic propellants
[NASA-CASE-INP-04731] c15 N71-24042

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Light weight plastic foam thermal insulation for cryogenic storage
[NASA-CASE-XLE-02647] c18 N71-23658
Development of foam insulation for filament wound cryogenic storage tank
[NASA-CASE-XLE-03803] c15 N71-23816

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High strength aluminum casting alloy for cryogenic applications in aerospace engineering
[NASA-CASE-XMF-02786] c17 N71-20743
Portable cryogenic cooling system design including turbine pump, cooling chamber, and atomizer
[NASA-CASE-NPO-10467] c23 N71-26654
Germanium coated microbridge and method
[NASA-CASE-MPS-23274-1] c33 N78-13320

CRYOLITE

Ultraviolet filter of thorium fluoride and cryolite on quartz base
[NASA-CASE-XNP-02340] c23 N69-24332

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Cryostat for flexure fatigue testing of composite materials
[NASA-CASE-XMF-02964] c14 N71-17659
Cryostat for use with horizontal fatigue testing machines at low temperatures
[NASA-CASE-XMF-10968] c14 N71-24234
Heater-mixer for stored fluids
[NASA-CASE-ABC-10442-1] c35 N74-15093
Cryostat system for temperatures on the order of 2 deg K or less
[NASA-CASE-NPO-13459-1] c31 N77-10229

CRYOTRAPPING

Atomic hydrogen storage method and apparatus --- cryotrapping and magnetic field strength
[NASA-CASE-LPW-12081-2] c72 N78-19907

CRYSTAL FILTERS

Infrared tunable dye laser with nonlinear wavelength mixing crystal in optical cavity
[NASA-CASE-ABC-10463-1] c09 N73-32111

CRYSTAL GROWTH

Device for producing high purity silicon carbide on carbon base by hydrogen reduction of silicon tetrachloride
[NASA-CASE-XLA-02057] c26 N70-40015
Electrodeposition method for producing crystalline material from dense gaseous medium
[NASA-CASE-NPO-10440] c15 N72-21466
Growth of gallium nitride crystals
[NASA-CASE-LAR-11302-1] c25 N75-13054
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[NASA-CASE-LAR-11144-1] c25 N75-26043
Process for fabricating SiC semiconductor devices
[NASA-CASE-LEW-12094-1] c76 N76-25049
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[NASA-CASE-NPO-13969-2] c76 N77-30984
Method of crystallization --- in gravity-free environments
[NASA-CASE-MPS-23001-1] c76 N77-32919
Pressure transducer --- using a monomeric charge transfer complex sensor
[NASA-CASE-NFO-11150] c35 N78-17359

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An improved method and apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction
[NASA-CASE-MPS-23315-1] c76 N76-32029

CRYSTAL OSCILLATORS

Describing crystal oscillator instrument for detecting condensable gas contaminants in vacuum apparatus
[NASA-CASE-NPO-10144] c14 N71-17701
Passive intrusion detection system
[NASA-CASE-NPO-12804-1] c35 N77-19390

CRYSTAL RECTIFIERS

Turn on current transient limiter for controlling peak current flow in high capacity load
[NASA-CASE-GSC-10413] c10 N71-26531

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Method of growing composites of the type exhibiting the Soret effect --- improved structure of eutectic alloy crystals
[NASA-CASE-MPS-22926-1] c24 N77-27187

CRYSTALLIZATION

Production of crystals from molten solutions
[NASA-CASE-NPO-13969-2] c76 N77-30984

Method of crystallization --- in gravity-free environments

[NASA-CASE-MPS-23001-1] c76 N77-32919

CRYSTALS

Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed
[NASA-CASE-MPS-20385] c09 N71-24904

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Development of variable angle device for positioning test tubes to permit optimum drying of culture medium
[NASA-CASE-LAR-10507-1] c11 N72-25284
Automatic inoculating apparatus --- includes movable carriage, drive motor, and swabbing motor
[NASA-CASE-LAR-11074-1] c51 N75-13502
Automatic microbial transfer device
[NASA-CASE-LAR-11354-1] c35 N75-27330

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Reaction cured glass and glass coatings
[NASA-CASE-ABC-11051-1] c27 N77-10201

CURRENT DENSITY

Solid state switching circuit design to increase current capacity of low rated relay contacts
[NASA-CASE-XNP-09228] c09 N69-27500
Technique and equipment for sputtering using apertured electrode and pulsed substrate bias
[NASA-CASE-LEW-10920-1] c17 N73-24569

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Distribution of currents to circuits using electrical adaptor
[NASA-CASE-XLA-01288] c09 N69-21470
Electron bombardment ion rocket engine with improved propellant introduction system
[NASA-CASE-XLE-02066] c28 N71-15661
Reversible current directing circuitry for reversible motor control
[NASA-CASE-XLA-09371] c10 N71-18724
Electric circuit for reversing direction of current flow
[NASA-CASE-XNP-00952] c10 N71-23271
Load insensitive electrical device --- power converters for supplying direct current at one voltage from a source at another voltage
[NASA-CASE-XER-11046-2] c33 N74-22864

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Apparatus for ballasting high frequency transistors
[NASA-CASE-XGS-05003] c09 N69-24318
Automatic baseline stabilization for ionization detector used in gas chromatograph
[NASA-CASE-XNP-03128] c10 N70-41991
Describing magnetic core current switching device for steering bipolar current pulses to memory units
[NASA-CASE-NPO-10201] c08 N71-18694
Circuit design for determining amount of photomultiplier tube light detection utilizing variable current source and dark current signals of opposite polarity
[NASA-CASE-XHS-03478] c14 N71-21040
Switching series regulator with gating control network
[NASA-CASE-XNS-09352] c09 N71-23316
Magnetic current regulator for saturable core transformer
[NASA-CASE-ERC-10075] c09 N71-24800
Automatic power supply circuit design for driving inductive loads and minimizing power consumption including solenoid example
[NASA-CASE-NPO-10716] c09 N71-24892
Turn on current transient limiter for controlling peak current flow in high capacity load
[NASA-CASE-GSC-10413] c10 N71-26531
Current regulating voltage divider design with load current shunting
[NASA-CASE-MPS-20935] c09 N71-34212
Circuit for monitoring power supply by ripple current indication
[NASA-CASE-KSC-10162] c09 N72-11225
Inrush current limiter
[NASA-CASE-GSC-11789-1] c33 N77-14333
Dual mode solid state power switch
[NASA-CASE-MPS-22880-2] c33 N77-31407
Circuit for automatic load sharing in parallel converter modules
[NASA-CASE-NFO-14056-1] c33 N77-32402

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Apparatus and method for spin forming tubular elbows with high strength, uniform thickness, and close tolerances
[NASA-CASE-XMP-01083] c15 N71-22723

Two degree inverted flexure from single block of material
[NASA-CASE-ARC-10345-1] c15 N73-12488

CURVE FITTING

Simulating voltage-current characteristic curves of solar cell panel with different operational parameters
[NASA-CASE-XMS-01554] c10 N71-10578

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Fabrication of curved reflector segments for solar mirror
[NASA-CASE-XLE-08917] c15 N71-15597

Method and apparatus for bowing of instrument panels to improve radio frequency shielded enclosure
[NASA-CASE-XMP-09422] c07 N71-19436

Space erectable rollup solar array of arcuate solar panels furled on tapered drum for spacecraft storage during launch
[NASA-CASE-NPO-10188] c03 N71-20273

Forming mold for polishing and machining curved solar magnesium reflector with reinforcing ribs
[NASA-CASE-XLE-08917-2] c15 N71-24836

CUSHIONS

An improved vehicular impact absorption system
[NASA-CASE-NPO-14014-1] c37 N77-31501

A seat cushion to provide realistic acceleration cues for aircraft simulator pilots
[NASA-CASE-LAR-12149-1] c54 N77-31787

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Description of device for aligning stacked sheets of paper for repetitive cutting
[NASA-CASE-XMS-04178] c15 N71-22798

Portable cutting machine for piping weld preparation
[NASA-CASE-XKS-07953] c15 N71-26134

Precision surface cutter for screen circuit negatives and other microcircuits
[NASA-CASE-XLA-09843] c15 N72-27485

Insert facing tool --- manually operated cutting tool for forming studs in honeycomb material
[NASA-CASE-MES-21485-1] c37 N74-25968

Grinding arrangement for ball nose milling cutters
[NASA-CASE-LAR-10450-1] c37 N74-27905

Ophthalmic liquifaction pump
[NASA-CASE-LZW-12051-1] c52 N75-33640

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Ellipsograph for describing and cutting ellipses with minimal axial dimensions
[NASA-CASE-XLA-03102] c14 N71-21079

Precision alignment apparatus for cutting a workpiece
[NASA-CASE-LAR-11658-1] c37 N77-14478

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Pneumatic system for cyclic control of fluid flow in pneumatic device
[NASA-CASE-XMS-04843] c03 N69-21469

Multistage feedback shift register with states decomposable into cycles of equal length
[NASA-CASE-NPO-11082] c08 N72-22167

CYCLIC ACCELERATORS

Cyclical bi-directional rotary actuator
[NASA-CASE-GSC-11883-1] c37 N77-19458

CYCLIC HYDROCARBONS

Para-benzoquinone dioxide and concentrated mineral acid processed to yield intumescent or fire resistant, heat insulating materials
[NASA-CASE-ARC-10304-1] c18 N73-26572

CYCLIC LOADS

Automatic controlled thermal fatigue testing apparatus
[NASA-CASE-XLA-02059] c33 N71-24276

Development of device for simulating cyclic thermal loading of flexible materials by application of mechanical stresses and deformations
[NASA-CASE-LAR-10270-1] c32 N72-25877

Material testing system with load sensor for applying and measuring cyclic tensile and compressive loads to test specimens
[NASA-CASE-MPS-20673] c14 N73-20476

CYCLOTROB RADIATION

Apparatus for producing high purity I-123 from Xe-123 by bombarding tellurium target with

cyclotron beam

[NASA-CASE-LEW-10518-2] c24 N72-28714

CYLINDRICAL ANTENNAS

Variable beamwidth antenna --- with multiple beam, variable feed system
[NASA-CASE-GSC-11862-1] c32 N76-18295

CYLINDRICAL BODIES

Apparatus for scanning the surface of a cylindrical body
[NASA-CASE-NPO-11861-1] c36 N74-20009

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Dynamic precession damping of spin-stabilized vehicles by using rate gyroscope and angular accelerometer
[NASA-CASE-XLA-01989] c21 N70-34295

Slosh damping method for liquid rocket propellant tanks
[NASA-CASE-XMP-00658] c12 N70-38997

Utilization of momentum devices for forming attitude control and damping system for spacecraft
[NASA-CASE-XLA-02551] c21 N71-21708

Three stage motion restraining mechanism for restraining and damping three dimensional vibrational movement of gimbaled package during launch of spacecraft
[NASA-CASE-GSC-10306-1] c15 N71-24694

Nutation damper for use on spinning body
[NASA-CASE-GSC-11205-1] c15 N73-25513

Development of electrical circuit for suppressing oscillations across inductor operating in resonant mode
[NASA-CASE-ERC-10403-1] c10 N73-26228

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Conversion system for increasing resolution of analog to digital converters
[NASA-CASE-XAC-00404] c08 N70-40125

Development of telemetry system for position location and data acquisition
[NASA-CASE-GSC-10083-1] c30 N71-16090

Data acquisition system for converting displayed analog signal to digital values
[NASA-CASE-NPO-10344] c10 N71-26544

Data acquisition and processing system with buffer storage and timing device for magnetic tape recording of PCM data and timing information
[NASA-CASE-NPO-12107] c08 N71-27255

Simultaneous acquisition of tracking data from two stations
[NASA-CASE-NPO-13292-1] c32 N75-15854

Contour detector and data acquisition system for the left ventricular outline
[NASA-CASE-ARC-10985-1] c52 N77-17701

DATA COLLECTION PLATFORMS

Remote platform power conserving system
[NASA-CASE-GSC-11182-1] c15 N75-13007

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Minimum time delay unit for conventional time multiplexed data compression channels
[NASA-CASE-XMP-08832] c08 N71-12506

Data compression processor for monitoring analog signals by sampling procedure
[NASA-CASE-NPO-10068] c08 N71-19288

Wide range analog data compression system
[NASA-CASE-XGS-02612] c08 N71-19435

Apparatus with summing network for compression of analog data by decreasing slope threshold sampling
[NASA-CASE-NPO-10769] c08 N72-11171

Data reduction and transmission system for TV PCM data
[NASA-CASE-NPO-11243] c07 N72-20154

Gated compressor, distortionless signal limiter
[NASA-CASE-NPO-11820-1] c32 N74-19788

Space communication system for compressed data with a concatenated Reed-Solomon-Viterbi coding channel
[NASA-CASE-NPO-13545-1] c32 N77-12240

Sampling video compression system
[NASA-CASE-ARC-10984-1] c32 N77-24328

DATA CONVERTERS

Logarithmic converter for compressing 19-digit binary input number to 8-digit output
[NASA-CASE-XLA-00471] c08 N70-34778

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Mechanical coordinate converter for use with spacecraft tracking antennas
[NASA-CASE-XNP-00614] c14 N70-36907

Analog signal to discrete time converter
[NASA-CASE-ERC-10048] c09 N72-25251

Digital converter for scaling binary number to binary coded decimal number of higher multiple
[NASA-CASE-KSC-10595] c08 N73-12176

Image data rate converter having a drum with a fixed head and a rotatable head
[NASA-CASE-NFO-11659-1] c35 N74-11283

Electronic analog divider
[NASA-CASE-LEW-11881-1] c33 N77-17354

DATA CORRELATION

Azimuth correlator for real-time synthetic aperture radar image processing
[NASA-CASE-NPO-14019-1] c32 N78-11266

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Characteristics of two channel telemetry system with two data rate channels for high and low data rate communication
[NASA-CASE-NPO-11572] c07 N73-16121

Automatic accounting system for transfer of data from terminals to computer
[NASA-CASE-NFO-11456] c08 N73-26176

Multi-computer multiple data path hardware exchange system
[NASA-CASE-NPO-13422-1] c60 N76-14818

Apparatus for simulating optical transmission links
[NASA-CASE-GSC-11877-1] c74 N76-18913

DATA MANAGEMENT

Selective data segment monitoring system --- using shift registers
[NASA-CASE-ARC-10899-1] c60 N77-19760

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Data processing and display system for terminal guidance of X-15 aircraft
[NASA-CASE-XFR-00756] c02 N71-13421

Encoders designed to generate comma free biorthogonal Reed-Muller type code comprising conversion of 64 6-bit words into 64 32-bit data for communication purposes
[NASA-CASE-NPO-10595] c10 N71-25917

Data acquisition and processing system with buffer storage and timing device for magnetic tape recording of PCM data and timing information
[NASA-CASE-NPO-12107] c08 N71-27255

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[NASA-CASE-XNP-01068] c10 N71-28739

Synchronized digital communication system
[NASA-CASE-XNP-03623] c09 N73-28084

Image data rate converter having a drum with a fixed head and a rotatable head
[NASA-CASE-NFO-11659-1] c35 N74-11283

An interactive color display for multispectral imagery using correlation clustering
[NASA-CASE-MSC-16253-1] c43 N77-31583

Charge-coupled device data processor for an airborne imaging radar system
[NASA-CASE-NFO-13587-1] c32 N77-32342

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Data processor having multiple sections activated at different times by selective power coupling to sections
[NASA-CASE-XGS-04767] c08 N71-12494

Development of demodulation system for removing amplitude modulation from two quadrature displaced data bearing signals
[NASA-CASE-XAC-04030] c10 N71-19472

Development and characteristics of rate augmented digital to analog converter for computed time-dependent data
[NASA-CASE-ILA-07828] c08 N71-27057

Data processor with plural register stages for selectively interconnecting with each other to effect multiplicity of operations
[NASA-CASE-GSC-10186] c08 N71-33110

Development and characteristics of telemetry system using computer-accessed circuits and remotely controlled from ground station
[NASA-CASE-NFO-11358] c07 N72-25172

Development and characteristics of data decoder to process convolution encoded information
[NASA-CASE-NPO-11371] c08 N73-12177

Characteristics of digital data processor using pulse from clock source to derive binary singles to show state of various indicators in processor
[NASA-CASE-GSC-10975-1] c08 N73-13187

Automatic accounting system for transfer of data from terminals to computer
[NASA-CASE-NPO-11456] c08 N73-26176

Space communication system for compressed data with a concatenated Reed-Solomon-Viterbi coding channel
[NASA-CASE-NFO-13545-1] c32 N77-12240

DATA RECORDERS

Description of system for recording and reading out data related to distribution of occurrence of plurality of events
[NASA-CASE-XNP-04067] c08 N71-22707

Design and characteristics of recording system for selective reprocessing and filtering of data to obtain optimum signal to noise ratios
[NASA-CASE-ERC-10112] c07 N72-21119

Recorder/processor apparatus --- for optical data processing
[NASA-CASE-GSC-11553-1] c35 N74-15831

DATA RECORDING

System for recording and reproducing PCM data from data stored on magnetic tape
[NASA-CASE-XGS-01021] c08 N71-21042

Description of system for recording and reading out data related to distribution of occurrence of plurality of events
[NASA-CASE-XNP-04067] c08 N71-22707

Development of data storage system for storing digital data in high density format on magnetic tape
[NASA-CASE-XNP-02778] c08 N71-22710

Transient video signal tape recorder with expanded playback
[NASA-CASE-ARC-10003-1] c09 N71-25866

Apparatus for on-film optical recording of camera lens aperture and focus setting
[NASA-CASE-MSC-12363-1] c14 N73-26431

Image data rate converter having a drum with a fixed head and a rotatable head
[NASA-CASE-NPO-11659-1] c35 N74-11283

Holography utilizing surface plasmon resonances
[NASA-CASE-MFS-22040-1] c35 N74-26946

DATA REDUCTION

System for storing histogram data in optimum number of elements
[NASA-CASE-XNP-09785] c08 N69-21928

Respiration analyzing method and apparatus for determining subjects oxygen consumption in aerospace environments
[NASA-CASE-XFR-08403] c05 N71-11202

Minimum time delay unit for conventional time multiplexed data compression channels
[NASA-CASE-XNP-08832] c08 N71-12506

Data compression processor for monitoring analog signals by sampling procedure
[NASA-CASE-NFO-10068] c08 N71-19288

Wide range analog data compression system
[NASA-CASE-XGS-02612] c08 N71-19435

Description of system for recording and reading out data related to distribution of occurrence of plurality of events
[NASA-CASE-XNP-04067] c08 N71-22707

Apparatus with summing network for compression of analog data by decreasing slope threshold sampling
[NASA-CASE-NPO-10769] c08 N72-11171

Data reduction and transmission system for TV PCM data
[NASA-CASE-NFO-11243] c07 N72-20154

Data compression using decreasing slope threshold test and digital techniques
[NASA-CASE-NFO-11630] c08 N72-33172

DATA RETRIEVAL

Magnetic matrix memory system for nondestructive reading of information contained in matrix
[NASA-CASE-XNP-05835] c08 N71-12504

Asynchronous, multiplexing, single line transmission and recovery data system --- for satellite use
[NASA-CASE-NPO-13321-1] c32 N75-26195

DATA SAMPLING

Monitoring circuit design for sampling circuit control and reduction of time-bandwidth in video communication systems
[NASA-CASE-XNP-02791] c07 N71-23026

Sampling circuit for signal processing in multiplex transmission by Fourier analysis
[NASA-CASE-NPO-10388] c07 N71-24622

Video signal processing system for sampling video brightness levels
[NASA-CASE-NPO-10140] c07 N71-24742

Apparatus with summing network for compression of analog data by decreasing slope threshold sampling
[NASA-CASE-NPO-10769] c08 N72-11171

Sampling video compression system
[NASA-CASE-ARC-10984-1] c32 N77-24328

DATA SMOOTHING
Variable time constant, wide frequency range smoothing network for noise removal from pulse chains
[NASA-CASE-IGS-01983] c10 N70-41964

DATA STORAGE
Data handling based on source significance, storage availability, and data received from source
[NASA-CASE-XNP-04162-1] c08 N70-34675

Magnetic matrix memory system for nondestructive reading of information contained in matrix
[NASA-CASE-XNP-05835] c08 N71-12504

Tape guidance system for multichannel digital recording system
[NASA-CASE-XNP-09453] c08 N71-19420

Event recorder with constant speed motor which rotates recording disk
[NASA-CASE-XLA-01832] c14 N71-21006

System for recording and reproducing PCM data from data stored on magnetic tape
[NASA-CASE-IGS-01021] c08 N71-21042

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[NASA-CASE-FRC-10151] c16 N71-29131

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Development and characteristics of rate augmented digital to analog converter for computed time-dependent data
[NASA-CASE-XLA-07828] c08 N71-27057

Method and apparatus for decoding compatible convolutional codes
[NASA-CASE-MSC-14070-1] c32 N74-32598

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Telemetry data unit to form multibit words for use between demodulator and computer
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Phase shift data transmission system with pseudo-noise synchronization code modulated with digital data into single channel for spacecraft communication
[NASA-CASE-XNP-00911] c08 N70-41961

Minimum time delay unit for conventional time multiplexed data compression channels
[NASA-CASE-XNP-08832] c08 N71-12506

Data compression processor for monitoring analog signals by sampling procedure
[NASA-CASE-NPO-10068] c08 N71-19288

Wide range analog data compression system
[NASA-CASE-XGS-02612] c08 N71-19435

Plural channel data transmission system with quadrature modulation and complementary demodulation
[NASA-CASE-XAC-06302] c08 N71-19763

Monitoring circuit design for sampling circuit control and reduction of time-bandwidth in video communication systems
[NASA-CASE-XNP-02791] c07 N71-23026

Frequency shift keying apparatus for use with pulse code modulation data transmission system
[NASA-CASE-IGS-01537] c07 N71-23405

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Data reduction and transmission system for TV PCM data
[NASA-CASE-NFO-11243] c07 N72-20154

Characteristics of two channel telemetry system with two data rate channels for high and low data rate communication
[NASA-CASE-NPO-11572] c07 N73-16121

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[NASA-CASE-NPO-11456] c08 N73-26176

System for generating timing and control signals
[NASA-CASE-NFO-13125-1] c33 N75-19519

Sampling video compression system
[NASA-CASE-ARC-10984-1] c32 N77-24328

Pseudo noise code and data transmission method and apparatus
[NASA-CASE-GSC-12017-1] c32 N77-30308

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Solar sensor with coarse and fine sensing elements for matching preirradiated cells on degradation rates
[NASA-CASE-XLA-01584] c14 N71-23269

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Assembly for opening flight capsule stabilizing and decelerating flaps with reference to capsule recovery
[NASA-CASE-XNP-00641] c31 N70-36410

Device for use in descending spacecraft as altitude sensor for actuating deceleration retrorockets
[NASA-CASE-XMS-03792] c14 N70-41812

Development and characteristics of hot air balloon deceleration and recovery system
[NASA-CASE-XLA-06824-2] c02 N71-11037

Zero gravity apparatus utilizing pneumatic decelerating means to create payload subjected to zero gravity conditions by dropping its height
[NASA-CASE-XMF-06515] c14 N71-23227

DECIMALS
Digital converter for scaling binary number to binary coded decimal number of higher multiple
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Method and apparatus for decoding compatible convolutional codes
[NASA-CASE-MSC-14070-1] c32 N74-32598

DECODERS
Serial digital decoder design with square circuit matrix and serial memory storage units
[NASA-CASE-NFO-10150] c08 N71-24650

Binary to decimal decoder logic circuit design with feedback control and display device
[NASA-CASE-XKS-06167] c08 N71-24890

Design and development of encoder/decoder system to generate binary code which is function of outputs of plurality of bistable elements
[NASA-CASE-NFO-10342] c10 N71-33407

Compact bi-phase pulse coded modulation decoder
[NASA-CASE-KSC-10834-1] c33 N76-14371

Low distortion receiver for bi-level baseband PCM waveforms
[NASA-CASE-MSC-14557-1] c32 N76-16249

Three phase full wave dc motor decoder
[NASA-CASE-GSC-11824-1] c33 N77-26386

DECODING
Binary data decoding device for use at receiving end of communication channel
[NASA-CASE-NFO-10118] c07 N71-24741

Development and characteristics of data decoder to process convolution encoded information
[NASA-CASE-NFO-11371] c08 N73-12177

Method and apparatus for decoding compatible convolutional codes
[NASA-CASE-MSC-14070-1] c32 N74-32598

Differential pulse code modulation
[NASA-CASE-MSC-12506-1] c32 N77-12239

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Decontamination of petroleum products with honey
[NASA-CASE-XNP-03835] c06 N71-23499

Heat exchanger and decontamination system for multistage refrigeration unit
[NASA-CASE-NPO-10634] c23 N72-25619

Plasma cleaning device
[NASA-CASE-MPS-22906-1] c75 N76-24001

DREP SPACE NETWORK

Low phase noise frequency divider for use with deep space network communication system
[NASA-CASE-NFO-11569] c10 N73-26229

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Hybrid holographic non-destructive test system --- optical and acoustical methods capable of detecting flaws in materials
[NASA-CASE-HFS-23114-1] c35 N76-24529

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Bipropellant injector with pair of concave deflector plates
[NASA-CASE-XNP-09461] c28 N72-23809
Horizontally mounted solar collector
[NASA-CASE-HFS-23349-1] c44 N77-30613

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Deflector for preventing objects from entering nacelle inlets of jet aircraft
[NASA-CASE-XLE-00388] c28 N70-34788
Aircraft wheel spray drag alleviator for dual tandem landing gear
[NASA-CASE-XLA-01583] c02 N70-36825
Ion beam deflector system for electronic thrust vector control for ion propulsion yaw, pitch, and roll forces
[NASA-CASE-LFW-10689-1] c28 N71-26173
Exhaust flow deflector --- for ducted gas flow
[NASA-CASE-LAR-11570-1] c34 N76-18364

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Optical retrodirective modulator with focus spoiling reflector driven by modulation signal
[NASA-CASE-GSC-10062] c14 N71-15605

DEFORMATION
Deformation measuring apparatus with feedback control for arbitrarily shaped structures
[NASA-CASE-LAR-10098] c32 N71-26681
Development of device for simulating cyclic thermal loading of flexible materials by application of mechanical stresses and deformations
[NASA-CASE-LAR-10270-1] c32 N72-25877
Deformable bearing seat
[NASA-CASE-LFW-12527-1] c37 N77-32500

DEGREES OF FREEDOM
Attitude control training device for astronauts permitting friction-free movement with five degrees of freedom
[NASA-CASE-XMS-02977] c11 N71-10746
Tuned damped vibration absorber for mass vibrating in more than one degree of freedom for use with wind tunnel models
[NASA-CASE-LAR-10083-1] c15 N71-27006
Kinesthetic control simulator --- for pilot training
[NASA-CASE-LAR-10276-1] c09 N75-15662

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Condenser-separator for dehumidifying air utilizing sintered metal surface
[NASA-CASE-XLA-08645] c15 N69-21465

DEHYDRATED FOOD
Rice preparation process consisting of cooking, two freezing-thawing cycles, and then freeze drying
[NASA-CASE-MSC-13540-1] c05 N72-33096

DELAY CIRCUITS
Development of pulsed differential comparator circuit
[NASA-CASE-XLE-03804] c10 N71-19471
Pulse duration control device for driving slow response time loads in selected sequence including switching and delay circuits and magnetic storage
[NASA-CASE-XGS-04224] c10 N71-26418
Telemetry synchronizer
[NASA-CASE-GSC-11868-1] c17 N76-22245

DELAY LINES
Development and characteristics of solid state acoustic variable time delay line using direct current voltage and radio frequency pulses
[NASA-CASE-ERC-10032] c10 N71-25900

DELIVERY
A system for delivering SiCl₄ to a chemical reactor
[NASA-CASE-NFO-14383-1] c31 N78-18253

DELTA MODULATION
Multifunction audio digitizer --- producing direct delta and pulse code modulation
[NASA-CASE-MSC-13855-1] c35 N74-17885

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Delta winged, manned reentry vehicle capable of horizontal glide landing at low speeds
[NASA-CASE-XLA-00241] c31 N70-37986

DEMAGNETIZATION

Tumbling motion system for object demagnetization
[NASA-CASE-IGS-02437] c15 N69-21472

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Plural channel data transmission system with quadrature modulation and complementary demodulation
[NASA-CASE-XAC-06302] c08 N71-19763
Restoration and improvement of demodulated facsimile video signals
[NASA-CASE-GSC-10185-1] c07 N72-12081

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[NASA-CASE-XNP-09225] c09 N69-24333
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[NASA-CASE-XNP-01160] c07 N71-11298
Development of demodulation system for removing amplitude modulation from two quadrature displaced data bearing signals
[NASA-CASE-XAC-04030] c10 N71-19472
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[NASA-CASE-XLA-03410] c16 N71-25914
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[NASA-CASE-MSC-12165-1] c07 N71-33696
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[NASA-CASE-FRC-10072-1] c33 N74-14939
Unbalanced quadriphase demodulator
[NASA-CASE-MSC-14840-1] c32 N77-24331
Digital demodulator-correlator --- for range-finding
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[NASA-CASE-XLE-00143] c14 N70-36618
Measuring density of single and two-phase cryogenic fluids in rocket fuel tanks
[NASA-CASE-XLE-00688] c14 N70-41330
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[NASA-CASE-HFS-20994-1] c35 N75-12271

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Increasing available power per unit area in ion rocket engine by increasing beam density
[NASA-CASE-XLE-00519] c28 N70-41576
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[NASA-CASE-LAR-11181-1] c39 N75-31479
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Capacitor for measuring density of compressible fluid in liquid, gas, or liquid and gas phases
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[NASA-CASE-XLE-00688] c14 N70-41330
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[NASA-CASE-LAR-11059-1] c76 N75-12810
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solar cell arrays aboard spacecraft and
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[NASA-CASE-LAR-10204] c14 N71-27215
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Dual purpose optical instrument capable of simultaneously acting as spectrometer and diffractometer
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[NASA-CASE-XNP-00911] c08 N70-41961
- Tape guidance system for multichannel digital recording system
[NASA-CASE-XNP-09453] c08 N71-19420
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[NASA-CASE-XGS-01812] c07 N71-23001
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[NASA-CASE-XNP-01068] c10 N71-28739
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- Control and information system for digital telemetry data using analog converter to digitize sensed parameter values
[NASA-CASE-NPO-11016] c08 N72-31226
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[NASA-CASE-IGS-00359] c14 N70-34158
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[NASA-CASE-IGS-00689] c08 N70-34787
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[NASA-CASE-XNP-01318] c10 N71-23033
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[NASA-CASE-XLE-00212] c03 N70-34134
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[NASA-CASE-XLA-00377] c33 N71-17610
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 [NASA-CASE-XER-11046-2] c33 N74-22864
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 [NASA-CASE-LEW-12038-2] c44 N77-32595
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 [NASA-CASE-GSC-10553-1] c07 N71-19854
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 [NASA-CASE-NFO-10173] c15 N71-24696
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 [NASA-CASE-XLA-00326] c03 N70-34667
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 [NASA-CASE-XLA-00711] c03 N71-12258
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 [NASA-CASE-XLA-01141] c15 N71-13789
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 [NASA-CASE-XKS-04631] c10 N71-23663
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 [NASA-CASE-MFS-20395] c15 N71-24903
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 [NASA-CASE-NFO-11140] c15 N72-17455
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 [NASA-CASE-NPO-10704] c15 N72-20445
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 [NASA-CASE-MSC-11849-1] c15 N72-22488
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 [NASA-CASE-NPO-11202] c15 N72-25450
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 [NASA-CASE-MFS-22323-1] c37 N76-14463
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 [NASA-CASE-MSC-16043-1] c37 N77-15397
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 [NASA-CASE-XLA-08530] c32 N71-25360

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 [NASA-CASE-XNP-00701] c09 N70-40272
 Difference indicating circuit used in conjunction with device measuring gravitational fields
 [NASA-CASE-XNP-08274] c10 N71-13537
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 [NASA-CASE-MFS-14322] c08 N71-18692
 Circuit design for determining amount of photomultiplier tube light detection utilizing variable current source and dark current signals of opposite polarity
 [NASA-CASE-XMS-03478] c14 N71-21040
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 [NASA-CASE-XNP-04819] c08 N71-23295
 Diode-quad bridge circuit means
 [NASA-CASE-ARC-10364-3] c33 N75-19520
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 [NASA-CASE-MFS-20829] c12 N72-21310
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 [NASA-CASE-MFS-21115-1] c54 N74-12779
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 [NASA-CASE-LAR-10544-1] c37 N74-13178
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 [NASA-CASE-MFS-21163-1] c54 N74-17853
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 [NASA-CASE-XLF-04946] c17 N71-24911
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 [NASA-CASE-XNP-08876] c17 N73-26573
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 Bimetallic fluid displacement apparatus --- for stirring and heating stored gases and liquids
 [NASA-CASE-ARC-10441-1] c35 N74-15126
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 Null-type vacuum microbalance for measuring minute mechanical displacements
 [NASA-CASE-XAC-00472] c15 N70-40180
 Development and characteristics of self-calibrating displacement transducer for measuring magnitude and frequency of displacement of bodies
 [NASA-CASE-XLA-00781] c09 N71-22999
 Gas bearing for model support with capacity for measuring angular displacement of model in bearing
 [NASA-CASE-XLA-09346] c15 N71-28740
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 [NASA-CASE-NFO-10778] c14 N72-11364
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 [NASA-CASE-NPO-13519-1] c33 N76-19338
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 Integrated time shared instrumentation display for aerospace vehicle simulators
 [NASA-CASE-XLA-01952] c08 N71-12507
 Data processing and display system for terminal guidance of X-15 aircraft
 [NASA-CASE-IFR-00756] c02 N71-13421
 Fluidic-thermochromic display device
 [NASA-CASE-ERC-10031] c12 N71-18603
 Cathode ray tube system for displaying ones and zeros in binary wave train
 [NASA-CASE-XGS-04987] c08 N71-20571
 Optical projector system for establishing optimum arrangement of instrument displays in aircraft, spacecraft, other vehicles, and industrial instrument consoles
 [NASA-CASE-XNP-03853] c23 N71-21882

- Optical monitor panel consisting of translucent screen with test or meter information projected onto it from rear for application in control rooms of missile launching and tracking stations
[NASA-CASE-XKS-03509] c14 N71-23175
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[NASA-CASE-XKS-06167] c08 N71-24890
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[NASA-CASE-XNP-09759] c08 N71-24891
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[NASA-CASE-NPO-10344] c10 N71-26544
- Plasma-fluidic hybrid display system combining high brightness and memory characteristics
[NASA-CASE-ERC-10100] c09 N71-33519
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[NASA-CASE-NPO-10745] c08 N72-22164
- Digital video system for displaying image and alphanumeric data on cathode ray tube
[NASA-CASE-NPO-11342] c09 N72-25248
- Development of apparatus for mounting scientific experiments in spacecraft to permit utilization without maneuvering spacecraft
[NASA-CASE-MSC-12372-1] c31 N72-25842
- Development and characteristics for automatically displaying digits in any desired order using optical techniques
[NASA-CASE-XKS-00348] c09 N73-14215
- Situational display system of cathode ray tubes to assist pilot in aircraft control
[NASA-CASE-ERC-10350] c14 N73-20474
- Device for displaying and recording angled views of samples to be viewed by microscope
[NASA-CASE-GSC-11690-1] c14 N73-28499
- Transparent switchboard which permits optical display devices to be adapted for use in man machine communications
[NASA-CASE-MSC-13746-1] c10 N73-32143
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[NASA-CASE-GSC-11553-1] c35 N74-15831
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[NASA-CASE-FRC-10071-1] c32 N74-20813
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[NASA-CASE-ARC-10806] c06 N74-27872
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[NASA-CASE-GSC-11582-1] c33 N75-19517
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[NASA-CASE-LAR-11833-1] c06 N76-31229
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[NASA-CASE-ARC-10994-2] c52 N77-15619
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[NASA-CASE-LAR-11941-1] c06 N77-20098
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[NASA-CASE-LAR-11782-1] c74 N77-20882
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[NASA-CASE-MFS-23194-1] c35 N78-17357
- Full color hybrid display for aircraft simulators --- landing aids
[NASA-CASE-ARC-10903-1] c09 N78-18083
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[NASA-CASE-NPO-14174-1] c35 N78-18396
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[NASA-CASE-GSC-10891-1] c10 N71-26626
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[NASA-CASE-LAR-11361-1] c44 N77-22607
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[NASA-CASE-LAR-10195-1] c15 N73-19458
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[NASA-CASE-NPO-11194] c08 N72-25209
- Apparatus for determining distance to lighting strokes from single station by magnetic and electric field sensing antennas
[NASA-CASE-KSC-10698] c07 N73-20175
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[NASA-CASE-LAR-12007-1] c74 N78-15883
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[NASA-CASE-XMS-04533] c15 N71-23086
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[NASA-CASE-XNP-08124] c15 N71-27184
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[NASA-CASE-XNP-08124-2] c06 N73-13129
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[NASA-CASE-NPO-10003] c10 N71-26415
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[NASA-CASE-GSC-11849-1] c33 N76-16332
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[NASA-CASE-LEW-11286-1] c07 N74-27490
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[NASA-CASE-ERC-10180-1] c60 N74-20836
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[NASA-CASE-XLA-02705] c08 N71-15908
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[NASA-CASE-MSC-12086-1] c05 N71-12345
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[NASA-CASE-XGS-02749] c07 N69-39978
- Describing laser Doppler velocimeter for measuring mean velocity and turbulence of fluid flow
[NASA-CASE-MFS-20386] c21 N71-19212
- Doppler compensated communication system for locating supersonic transport position
[NASA-CASE-GSC-10087-4] c07 N73-20174
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[NASA-CASE-HQN-10740-1] c72 N74-19310
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[NASA-CASE-LAR-10403] c21 N71-11766
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[NASA-CASE-XLA-01220] c02 N70-41863
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[NASA-CASE-XLA-00113] c14 N70-33386
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[NASA-CASE-XLA-00755] c01 N71-13410
- Electric analog for measuring induced drag on nonplanar airfoils
[NASA-CASE-XLA-05828] c01 N71-13411
- Impact energy absorber with decreasing absorption rate
[NASA-CASE-XLA-01530] c14 N71-23092
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[NASA-CASE-XAC-00139] c02 N70-34856
- Aircraft wheel spray drag alleviator for dual tandem landing gear

[NASA-CASE-XLA-01583] c02 N70-36825
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 [NASA-CASE-XMS-05562-1] c09 N69-39986
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 [NASA-CASE-XLA-00183] c14 N70-40239
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 [NASA-CASE-MFS-23551-1] c04 N76-26175
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 [NASA-CASE-XNP-01412] c15 N7C-42034
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 [NASA-CASE-NPO-10985] c14 N73-20478
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 [NASA-CASE-ARC-10469-1] c25 N75-12086
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 [NASA-CASE-XLE-02531] c05 N71-23080
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 [NASA-CASE-MFS-20395] c15 N71-24903
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 [NASA-CASE-MFS-19194-1] c37 N76-14460
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 Device for removing plastic dust cover from digital computer disk packs for inspection and cleaning
 [NASA-CASE-LAR-10590-1] c15 N70-26819
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 [NASA-CASE-ARC-10463-1] c09 N73-32111
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 [NASA-CASE-LAR-11341-1] c36 N75-19655
 Two wavelength double pulse tunable dye laser
 [NASA-CASE-LAR-12012-1] c36 N77-10517
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 Dye penetrant and technique for nondestructive tests of solid surfaces contacted by liquid oxygen
 [NASA-CASE-XMP-02221] c18 N71-27170
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 [NASA-CASE-XAC-02877] c14 N70-41681
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 [NASA-CASE-ARC-10444-1] c16 N73-33397
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 [NASA-CASE-XLA-01326] c11 N71-21481
 Apparatus for measuring load on cable under static or dynamic conditions comprising pulleys pivoting structure against restraint of tension strap
 [NASA-CASE-XMS-04545] c15 N71-22878
 Development and characteristics of device for indicating and recording magnitude of force applied in axial direction
 [NASA-CASE-MSC-15626-1] c14 N72-25411
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 [NASA-CASE-XLE-01300] c15 N70-41993
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 [NASA-CASE-XLA-00493] c11 N70-34786
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 [NASA-CASE-ABC-10154-1] c14 N72-22440
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 [NASA-CASE-XMP-01772] c11 N70-41677
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 [NASA-CASE-XLE-00702] c14 N70-40203
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E

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[NASA-CASE-ERC-10013] c09 N71-26678
- Apparatus for determining distance to lighting strokes from single station by magnetic and electric field sensing antennas
[NASA-CASE-KSC-10698] c07 N73-20175
- Development and characteristics of apparatus for measuring intensity of electric field in atmosphere
[NASA-CASE-KSC-10730-1] c14 N73-32318
- Fine particulate capture device
[NASA-CASE-LEW-11583-1] c37 N74-13199
- Electric field measuring and display system --- for cloud formations
[NASA-CASE-KSC-10731-1] c33 N74-27862
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[NASA-CASE-LEW-12273-1] c33 N77-17357
- Microcomputerized electric field meter diagnostic and calibration system
[NASA-CASE-KSC-11035-1] c33 N77-20343
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[NASA-CASE-XMP-00663] c08 N71-18752
- Apparatus for filtering input signals
[NASA-CASE-NPO-10198] c09 N71-24806
- Active RC filter networks and amplifiers for deep space magnetic field measurement
[NASA-CASE-XAC-05462-2] c10 N72-17171
- Multiloop RC active filter network with low parameter sensitivity and low amplifier gain
[NASA-CASE-ARC-10192] c09 N72-21245
- Development of electric connector and pin assembly with radio frequency absorbing sleeve to reduce radio frequency interference
[NASA-CASE-XLA-02609] c09 N72-25256
- Filter for third order phase locked loops in signal receivers
[NASA-CASE-NPO-11941-1] c10 N73-27171
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- Development of in-line fuse device for protection of electric circuits from excessive currents and voltages
[NASA-CASE-MSC-12135-1] c09 N71-12526
- Single electrical circuit component combining diode, fuse, and blown indicator with elongated tube of heat resistant transparent material
[NASA-CASE-XRS-03381] c09 N71-22796
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[NASA-CASE-XGS-03429] c03 N69-21330
- Nuclear electric generator for accelerating charged propellant particles in electrostatic propulsion system
[NASA-CASE-XLE-00818] c22 N70-34248
- Design and development of electric generator for space power system
[NASA-CASE-XLE-04250] c09 N71-23446
- Development and characteristics of single or double pulse generator which produces constant width pulses in nanosecond region
[NASA-CASE-XGS-03427] c10 N74-23029
- Development of slip ring assembly with inner and outer peripheral surfaces used as electrical contacts for brushes
[NASA-CASE-XMP-01049] c15 N71-23049
- Conversion of positive dc voltage to positive dc voltage of lower amplitude
[NASA-CASE-XMP-14301] c09 N71-23188
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[NASA-CASE-XLE-03629] c17 N71-23248
- Solid state integrator for converting variable width pulses into analog voltage
[NASA-CASE-XLA-03356] c10 N71-23315
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[NASA-CASE-MPS-14114-2] c09 N71-24807
- Device utilizing RC rate generators for continuous slow speed measurement
[NASA-CASE-XMP-02966] c10 N71-24863
- Device for voltage conversion using controlled pulse widths and arrangements to generate ac output voltage
[NASA-CASE-MPS-10068] c10 N71-25139
- Multiple varactor for generating high frequencies with high power and high conversion efficiency
[NASA-CASE-XMP-04958-1] c10 N71-26414
- Circuit design for failure sensing and protecting low voltage electric generator and power transmission networks
[NASA-CASE-GSC-10114-1] c10 N71-27366
- Electric power system with thermionic diodes and circulatory liquid metal coolant lines
[NASA-CASE-MPS-14114] c33 N71-27862
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[NASA-CASE-XER-11046] c09 N72-22203
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[NASA-CASE-ERC-10268] c09 N72-25252
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[NASA-CASE-GSC-11126-1] c09 N72-25253
- Device for converting electromagnetic wave energy into electric power
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[NASA-CASE-NPO-13303-1] c20 N75-24837
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[NASA-CASE-LAR-11208-1] c07 N78-10096
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- Method of making solid propellant rocket motor having reliable high altitude capabilities, long shelf life, and capable of firing with nozzle closure with foamed plastic permanent mandrel
[NASA-CASE-XLA-04126] c28 N71-26779
- ELECTRIC MOTORS**
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[NASA-CASE-XMS-04215-1] c09 N69-39987
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[NASA-CASE-XMP-01129] c09 N70-38712
- Using electron beam switching for brushless motor commutation
[NASA-CASE-XGS-01451] c09 N71-10677
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[NASA-CASE-XMP-01096] c10 N71-16030
- Describing angular position and velocity sensing apparatus
[NASA-CASE-XGS-05680] c14 N71-17585
- Reversible current directing circuitry for reversible motor control
[NASA-CASE-XLA-09371] c10 N71-18724
- Stepping motor control apparatus exciting windings in proper time sequence to cause motor to rotate in either direction
[NASA-CASE-GSC-10366-1] c10 N71-18772
- Electromagnetic braking arrangement for controlling rotor rotation in electric motor
[NASA-CASE-XMP-06936] c15 N71-24695
- Electric motor control system with pulse width modulation for providing automatic null seeking servo
[NASA-CASE-XMP-05195] c10 N71-24861
- Velocity limiting safety system for motor driven research vehicle
[NASA-CASE-XLA-07473] c15 N71-24895
- Design and development of electric motor with stationary field and armature windings which operates on direct current
[NASA-CASE-XGS-05290] c09 N71-25999
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[NASA-CASE-XMP-07477] c09 N71-26092
- Pulse duration control device for driving slow response time loads in selected sequence

including switching and delay circuits and magnetic storage
[NASA-CASE-XGS-04224] c10 N71-26418

Feedback control for direct current motor to achieve constant speed under varying loads
[NASA-CASE-MFS-14610] c09 N71-28886

Optimal control system for automatic speed regulation of electric driven motor vehicle
[NASA-CASE-NFO-11210] c11 N72-20244

Direct current motor including stationary field windings and stationary armature winding
[NASA-CASE-XGS-07805] c15 N72-33476

Speed control system for dc motor equipped with brushless Hall effect device
[NASA-CASE-MFS-20207-1] c09 N73-32107

A rotary electric device
[NASA-CASE-GSC-12138-1] c33 N77-20344

Three phase full wave dc motor decoder
[NASA-CASE-GSC-11824-1] c33 N77-26386

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Electric network for monitoring temperatures, detecting critical temperatures, and indicating critical time duration
[NASA-CASE-XNP-01097] c10 N71-16058

Development and characteristics of single or double pulse generator which produces constant width pulses in nanosecond region
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Switching series regulator with gating control network
[NASA-CASE-XMS-09352] c09 N71-23316

Broadband frequency discriminator with resistive captive inductive networks
[NASA-CASE-NPO-10096] c07 N71-24583

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Battery charging system with cell to cell voltage balance
[NASA-CASE-XGS-05432] c03 N71-19438

Conversion of positive dc voltage to positive dc voltage of lower amplitude
[NASA-CASE-XNP-14301] c09 N71-23188

Solid state integrator for converting variable width pulses into analog voltage
[NASA-CASE-XLA-03356] c10 N71-23315

Device for monitoring voltage by generating signal when voltages drop below predetermined value
[NASA-CASE-KSC-10020] c10 N71-27338

Plotter device for automatically drawing equipotential lines on sheet of resistance paper
[NASA-CASE-NPO-11134] c09 N72-21246

Pulsed excitation voltage circuit for strain gage bridge transducers
[NASA-CASE-PRC-10036] c09 N72-22200

Power converters for supplying direct current at one voltage from source at another voltage
[NASA-CASE-XER-11046] c09 N72-22203

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[NASA-CASE-NPO-11129] c09 N72-33204

Photoelectron spectrometer with means for stabilizing sample surface potential
[NASA-CASE-NPO-13772-1] c35 N78-10429

ELECTRIC POWER

Switching circuit with regeneratively connected transistors eliminating power consumption when not in use
[NASA-CASE-XNP-02654] c10 N70-42032

Variable water load for dissipating large amounts of electrical power during high voltage power supply tests
[NASA-CASE-XNP-05381] c09 N71-20842

Power factor control system for AC induction motors
[NASA-CASE-MFS-23280-1] c33 N78-10376

Shunt regulation electric power system
[NASA-CASE-GSC-10135] c33 N78-17296

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Ocean thermal plant
[NASA-CASE-KSC-11034-1] c44 N77-21666

ELECTRIC POWER SUPPLIES

Current dependent variable inductance for input filter chokes of ac or dc power supplies
[NASA-CASE-EBC-10139] c09 N72-17154

Development of thermal to electric power conversion system using solid state switches of electrical currents to load for Seebeck effect compensation
[NASA-CASE-NPO-11388] c03 N72-23048

Development of electrical circuit for suppressing oscillations across inductor operating in resonant mode
[NASA-CASE-EBC-10403-1] c10 N73-26228

Powerplexer for distribution of dc power levels to loads which require different voltages
[NASA-CASE-MSC-12396-1] c03 N73-31988

Reliable electrical element heater using plural wire system and backup power sources
[NASA-CASE-MFS-21462-1] c33 N74-14935

Temperature compensated current source
[NASA-CASE-MSC-11235] c33 N78-17294

ELECTRIC POWER TRANSMISSION

Power switch with transfluxor type magnetic core
[NASA-CASE-NFO-10242] c09 N71-24803

Circuit design for failure sensing and protecting low voltage electric generator and power transmission networks
[NASA-CASE-GSC-10114-1] c10 N71-27366

Powerplexer for distribution of dc power levels to loads which require different voltages
[NASA-CASE-MSC-12396-1] c03 N73-31988

Microwave power transmission system wherein level of transmitted power is controlled by reflections from receiver
[NASA-CASE-MFS-21470-1] c44 N74-19870

RF beam center location method and apparatus for power transmission system
[NASA-CASE-NFO-13821-1] c44 N76-26692

ELECTRIC PROPULSION

Electric propulsion engine test chamber
[NASA-CASE-XLE-00252] c11 N70-34844

ELECTRIC PULSES

RC transistor circuit to indicate each pulse of pulse train and occurrence of nth pulse
[NASA-CASE-XNP-00906] c09 N70-41655

Design and development of variable pulse width multiplier
[NASA-CASE-XLA-02850] c09 N71-20447

Piezoelectric transducer for monitoring sound waves of physiological origin
[NASA-CASE-XMS-05365] c14 N71-22993

Development and characteristics of single or double pulse generator which produces constant width pulses in nanosecond region
[NASA-CASE-XGS-03427] c10 N71-23029

Solid state integrator for converting variable width pulses into analog voltage
[NASA-CASE-XLA-03356] c10 N71-23315

Development and characteristics of electric circuitry for detecting electrical pulses rise time and amplitude
[NASA-CASE-XNP-08804] c09 N71-24717

Circuit for measuring wide range of pulse rates by utilizing high capacity counter
[NASA-CASE-XNP-06234] c10 N71-27137

Precision full wave rectifier circuit for rectifying incoming electrical signals having positive or negative polarity with only positive output signals
[NASA-CASE-ARC-10101-1] c09 N71-33109

Phase modulating with odd and even finite power series of a modulating signal
[NASA-CASE-LAR-11607-1] c32 N77-14292

ELECTRIC RELAYS

Spark gap type protective circuit for fast sensing and removal of overvoltage conditions
[NASA-CASE-XAC-08981] c09 N69-39897

Time division multiplexer with magnetic latching relays
[NASA-CASE-XNP-00431] c09 N70-38998

Alarm system design for monitoring one or more relay circuits
[NASA-CASE-XMS-10984-1] c10 N71-19417

Time division relay synchronizer with master sync pulse for activating binary counter to produce signal identifying time slot for station
[NASA-CASE-GSC-10373-1] c07 N71-19773

Relay circuit breaker with magnetic latching to provide conductive and nonconductive paths for current devices
[NASA-CASE-MSC-11277] c09 N71-29008

Multi-cell battery protection system
[NASA-CASE-LEW-12039-1] c44 N78-18625

ELECTRIC ROCKET ENGINES

Electric rocket engine with electron bombardment ionization chamber
[NASA-CASE-XNP-04124] c28 N71-21822

ELECTRIC SWITCHES

Thermionic diode switch for use in high temperature region to chop current from dc source
[NASA-CASE-NFO-10404] c03 N71-12255

Characteristics of hermetically sealed electric switch with flexible operating capability
[NASA-CASE-INP-09808] c09 N71-12518

Electrical switching device comprising conductive liquid confined within square loop of deformable nonconductive tubing also used for leveling
[NASA-CASE-NFO-10037] c09 N71-19610

System for checking status of several double-throw switches by readout indications
[NASA-CASE-XLA-08799] c10 N71-27272

Pulse generating circuit for operation at very high duty cycles and repetition rates
[NASA-CASE-INP-00745] c10 N71-28960

High dc switch for causing abrupt, cyclic, decreases of current to operate under zero or varying gravity conditions
[NASA-CASE-LEW-10155-1] c09 N71-29035

Zero power telemetry actuated switch for biomedical equipment
[NASA-CASE-ARC-10105] c09 N72-17153

Development of differential pressure control system using motion of mechanical diaphragms to operate electric switch
[NASA-CASE-MFS-14216] c14 N73-13418

Dual mode solid state power switch
[NASA-CASE-MFS-22880-1] c33 N76-31410

Very narrow band width receiver
[NASA-CASE-GSC-12142-1] c32 N77-20299

ELECTRIC TERMINALS

Electrical connector pin with wiping action to assure reliable contact
[NASA-CASE-XMF-04238] c09 N69-39734

Patent data on terminal insert connector for flat electric cables
[NASA-CASE-XMF-00324] c09 N70-34596

Tool attachment for spreading or moving away loose elements from terminal posts during winding of filamentary elements
[NASA-CASE-XMF-02107] c15 N71-10809

Electrical spot terminal assembly for printed circuit boards
[NASA-CASE-NFO-10034] c15 N71-17685

Device for resistance soldering electrical leads to solder cups of multiple terminal block
[NASA-CASE-GSC-10913] c15 N72-22491

Development of electric connector and pin assembly with radio frequency absorbing sleeve to reduce radio frequency interference
[NASA-CASE-XLA-02609] c09 N72-25256

Device for configuring multiple leads --- method for connecting electric leads to printed circuit board
[NASA-CASE-MFS-22133-1] c33 N74-26977

ELECTRIC WELDING

Development of electric weeding torch with casing on one end to form inert gas shield
[NASA-CASE-XMF-02330] c15 N71-23798

Electrical resistance butt welder for welding fine gauge tungsten/rhenium thermocouple wire
[NASA-CASE-LAR-10103-1] c15 N73-14468

Electric resistance spot welding and brazing for producing metal bonds with superior mechanical and structural characteristics
[NASA-CASE-LAR-11072-1] c15 N73-20535

Process for welding compressor and turbine blades to rotors and discs of jet engines
[NASA-CASE-LEW-10533-1] c15 N73-28515

ELECTRIC WIRE

Apparatus for forming wire grids for electric strain gages
[NASA-CASE-XLE-00023] c15 N70-33330

Control of fusion welding through use of thermocouple wire
[NASA-CASE-MFS-06074] c15 N71-20393

Ablation sensor for measuring char layer recession rate using electric wires
[NASA-CASE-XLA-01794] c33 N71-21586

Device for resistance soldering electrical leads to solder cups of multiple terminal block
[NASA-CASE-GSC-10913] c15 N72-22491

Lead attachment for high temperature operation of electronic devices
[NASA-CASE-ERC-10224] c09 N72-25261

Means for accommodating large overstrain in lead wires --- by storing extra length of wire in stretchable loop
[NASA-CASE-LAR-10168-1] c33 N74-22865

Device for configuring multiple leads --- method for connecting electric leads to printed circuit board
[NASA-CASE-MFS-22133-1] c33 N74-26977

High current electrical lead --- for thermionic converters
[NASA-CASE-LEW-10950-1] c33 N74-27683

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Counter-divider circuit for accuracy and reliability in binary circuits
[NASA-CASE-XMF-00421] c09 N70-34502

Vibrating element electrometer producing high conversion gain by input current control of elements resonant frequency displacement amplitude
[NASA-CASE-XAC-02807] c09 N71-23021

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Overcurrent protecting circuit for push-pull transistor amplifiers
[NASA-CASE-MSC-12033-1] c09 N71-13531

Circuit design for failure sensing and protecting low voltage electric generator and power transmission networks
[NASA-CASE-GSC-10114-1] c10 N71-27366

Test method and equipment for identifying faulty cells or connections in solar cell assemblies
[NASA-CASE-NFO-10401] c03 N72-20033

Shared memory for a fault-tolerant computer
[NASA-CASE-NPO-13139-1] c60 N76-21914

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[NASA-CASE-XMF-06937] c09 N71-19516

Development of electrical system for measuring high impedance
[NASA-CASE-XMS-08589-1] c09 N71-20569

Signaling summary alarm circuit with semiconductor switch for faulty contact indications
[NASA-CASE-XLE-03061-1] c10 N71-24798

Signal conditioning circuit apparatus --- with constant input impedance
[NASA-CASE-ARC-10348-1] c33 N75-19518

Readout electrode assembly for measuring biological impedance
[NASA-CASE-ARC-10816-1] c35 N76-24525

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[NASA-CASE-MFS-22560-1] c33 N77-14335

ELECTRICAL INSULATION

Water cooled solenoid capable of producing magnetic field intensities up to 100 kilogauss
[NASA-CASE-XMF-01951] c09 N70-41929

Method and apparatus for removing plastic insulation from wire using cryogenic equipment
[NASA-CASE-MFS-10340] c15 N71-17628

Nonconductive tube as feed system for plasma thruster
[NASA-CASE-XLE-02902] c25 N71-21694

Internal labyrinth and shield structure to improve electrical isolation of propellant feed source from ion thruster
[NASA-CASE-LEW-10210-1] c28 N71-26781

Development of process for forming insulating layer between two electrical conductor or semiconductor materials
[NASA-CASE-LEW-10489-1] c15 N72-25447

Bio-isolated dc operational amplifier --- for bioelectric measurements
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[NASA-CASE-XGS-02439] c14 N71-19431
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[NASA-CASE-XLE-02008] c09 N71-21583
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[NASA-CASE-XNP-04780] c08 N71-19687
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[NASA-CASE-XGS-11177] c09 N71-27001
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[NASA-CASE-ZRC-10113] c09 N71-27053
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[NASA-CASE-XGS-03865] c14 N69-21363
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[NASA-CASE-XGS-01419] c03 N70-41804
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[NASA-CASE-XGS-01674] c03 N71-29129
- Flexible, frangible electrochemical cell and package for operation in low temperature environment
[NASA-CASE-XGS-10010] c03 N72-15986
- Porous electrode for use in electrochemical cells
[NASA-CASE-GSC-11368-1] c09 N73-32108
- Battery testing device --- for testing cells of multiple-cell battery
[NASA-CASE-MPS-20761-1] c44 N74-27519
- Electrical conductivity cell and method for fabricating the same
[NASA-CASE-ARC-10810-1] c33 N76-19339
- Device for the detection of phenol and related compounds --- in an electrochemical cell
[NASA-CASE-LEW-12513-1] c25 N77-18238
- Multi-cell battery protection system
[NASA-CASE-LEW-12039-1] c44 N78-14625
- ELECTROCHEMICAL OXIDATION**
Device for the detection of phenol and related compounds --- in an electrochemical cell
[NASA-CASE-LEW-12513-1] c25 N77-18238
- ELECTROCHEMISTRY**
Electrochemically reversible silver-silver chloride electrode for detecting bioelectric potential differences generated by human muscles and organs
[NASA-CASE-XMS-02872] c05 N69-21925
- Electrochemical data signal process and display
[NASA-CASE-LAR-11922-1] c25 N78-17171
- ELECTRODE FILM BARRIERS**
Formulated plastic separators for soluble electrode cells --- rubber-ion transport sheeting
[NASA-CASE-LEW-12358-1] c44 N77-18560
- ELECTRODEPOSITION**
Binding layer of semiconductor particles by electrodeposition
[NASA-CASE-XNP-01959] c26 N71-23043
- Electrodeposition method for producing crystalline material from dense gaseous medium
[NASA-CASE-NPO-10440] c15 N72-21466
- Electrophoretic sample insertion --- device for uniformly distributing samples in flow path
[NASA-CASE-MPS-21395-1] c25 N74-26948
- Multitarget sequential sputtering apparatus
[NASA-CASE-NPO-13345-1] c37 N75-19684
- Device for the detection of phenol and related compounds --- in an electrochemical cell
[NASA-CASE-LEW-12513-1] c25 N77-18238
- ELECTRODES**
Hollow spherical electrode for shielding dielectric junction between high voltage conductor and insulator
[NASA-CASE-XLE-03778] c09 N69-21542
- Electrochemically reversible silver-silver chloride electrode for detecting bioelectric potential differences generated by human muscles and organs
[NASA-CASE-XMS-02872] c05 N69-21925
- Bonding method for improving contact between lead telluride thermoelectric elements and tungsten electrodes
[NASA-CASE-XGS-04554] c15 N69-39786
- Ionization vacuum gage
[NASA-CASE-XNP-00646] c14 N70-35666
- Accel and focus electrode design for ion engine with improved efficiency
[NASA-CASE-XNP-02839] c28 N70-41922
- Including didymium hydrate in nickel hydroxide of positive electrode of storage batteries to increase ampere hour capacity
[NASA-CASE-XGS-03505] c03 N71-10608
- Apertured electrode focusing system for ion sources with nonuniform plasma density
[NASA-CASE-XNP-03332] c09 N71-10618
- Electromedical garment, applying vectorcardiologic type electrodes to human torsos for data recording during physical activity
[NASA-CASE-XPR-10856] c05 N71-11189
- Electrode attached to helmets for detecting low level signals from skin of living creatures
[NASA-CASE-ARC-10043-1] c05 N71-11193
- Characteristics of pressed disc electrode for biological measurements
[NASA-CASE-XMS-04212-1] c05 N71-12346
- Electrode connection for n-on-p silicon solar cell
[NASA-CASE-XLE-04787] c03 N71-20492
- Arc electrode of graphite with tantalum ball tip
[NASA-CASE-XLE-04788] c09 N71-22987
- Electrode sealing and insulation for fuel cells containing caustic liquid electrolytes using powdered plastic and metal
[NASA-CASE-XMS-01625] c15 N71-23022
- Automatic recording McLeod gage with three electrodes and solenoid valve connection
[NASA-CASE-XLE-03280] c14 N71-23093
- Dry electrode design with wire sandwiched between two flexible conductive discs for monitoring physiological responses
[NASA-CASE-FEC-10029] c09 N71-24618
- Development and characteristics of electrodes in which poisoning by organic molecules is prevented by ion selective electrolytic deposition of hydrophilic protein colloid
[NASA-CASE-XMS-04213-1] c09 N71-26002
- Adhesive spray process for attaching biomedical skin electrodes
[NASA-CASE-XPR-07658-1] c05 N71-26293
- Electrodes having array of small surfaces for field ionization
[NASA-CASE-ERC-10013] c09 N71-26678
- Manufacturing process for making perspiration resistant-stress resistant biopotential electrode
[NASA-CASE-MSC-90153-2] c05 N72-25120
- Dry electrode manufacture, using silver powder with cement
[NASA-CASE-FEC-10029-2] c05 N72-25121
- Compressible electrolyte saturated sponge electrode for biomedical applications
[NASA-CASE-MSC-13648] c05 N72-27103
- Electrode with multiple columnar conductors for limiting field emission current
[NASA-CASE-ERC-10015-2] c10 N72-27246
- Coaxial, high density, hypervelocity plasma generator and accelerator using electrodes
[NASA-CASE-MPS-20589] c25 N72-32688
- Characteristics of ion rocket engine with combination keeper electrode and electron baffle
[NASA-CASE-NPO-11880] c28 N73-24783
- Silicon carbide backward diode with coated lead attachment
[NASA-CASE-ERC-10224-2] c09 N73-27150
- Porous electrode for use in electrochemical cells
[NASA-CASE-GSC-11368-1] c09 N73-32108
- High powered arc electrodes --- producing solar simulator radiation
[NASA-CASE-LEW-11162-1] c33 N74-12913
- Method of making porous conductive supports for electrodes --- by electroforming and stacking nickel foils
[NASA-CASE-GSC-11367-1] c44 N74-19692
- Insulated electrocardiographic electrodes --- without paste electrolyte
[NASA-CASE-MSC-14339-1] c05 N75-24716
- Readout electrode assembly for measuring biological impedance
[NASA-CASE-ARC-10816-1] c35 N76-24525
- Gels as battery separators for soluble electrode cells
[NASA-CASE-LEW-12364-1] c44 N77-22606
- Snap-in compressible biomedical electrode
[NASA-CASE-MSC-14623-1] c52 N77-28717
- ELECTROFORMING**
Method of electroforming a rocket chamber
[NASA-CASE-LEW-11118-1] c20 N74-32919
- ELECTROHYDRAULIC FORMING**
Electric discharge apparatus for electrohydraulic explosive forming
[NASA-CASE-XNP-00375] c15 N70-34249
- ELECTROHYDRODYNAMICS**
Control valve for switching main stream of fluid from one stable position to another by means of electrohydrodynamic forces
[NASA-CASE-NPO-10416] c12 N71-27332
- ELECTROKINETICS**
Zeta potential flowmeter for measuring very slow to very high flows
[NASA-CASE-XNP-06509] c14 N71-23226

ELECTROLYSIS

Water electrolysis rocket engine with self-regulating stoichiometric fuel mixing regulator [NASA-CASE-XGS-08729] c28 N71-14044

Operation method for combined electrolysis device and fuel cell using molten salt to produce power by thermoelectric regeneration mechanism [NASA-CASE-XLE-01645] c03 N71-20904

ELECTROLYTES

Apparatus for measuring polymer membrane expansion in electrochemical cells [NASA-CASE-IGS-03865] c14 N69-21363

Electrolytically regenerative hydrogen-oxygen fuel cells [NASA-CASE-XLE-04526] c03 N71-11052

Sealed electrochemical cell with flexible casing for varying electrolyte level in cell [NASA-CASE-XGS-01513] c03 N71-23336

Compressible electrolyte saturated sponge electrode for biomedical applications [NASA-CASE-MSC-13648] c05 N72-27103

ELECTROLYTIC CELLS

Heat activated cell with aluminum anode [NASA-CASE-LEW-11359-2] c03 N72-20034

Actuator operated by electrolytic drive gas generator and evacuator [NASA-CASE-NPO-11369] c15 N73-13467

Electrolytic cell structure [NASA-CASE-LAR-11042-1] c33 N75-27252

Reconstituted asbestos matrix --- for use in fuel or electrolysis cells [NASA-CASE-MSC-12568-1] c24 N76-14204

Polymeric electrolytic hygrometer [NASA-CASE-NPO-13948-1] c35 N77-28470

ELECTROMAGNETIC ABSORPTION

Optical imaging system for increasing light absorption efficiency of imaging detector [NASA-CASE-ARC-10194-1] c23 N73-20741

Method and apparatus for background signal reduction in opto-acoustic absorption measurement [NASA-CASE-NPO-13683-1] c35 N77-14411

ELECTROMAGNETIC FIELDS

Tumbling motion system for object demagnetization [NASA-CASE-XGS-02437] c15 N69-21472

Device for high vacuum film deposition with electromagnetic ion steering [NASA-CASE-NPO-10331] c09 N71-26701

Metal detection system with electromagnetic transmitter with single coil and receiver with single coil [NASA-CASE-ARC-10265-1] c10 N72-28240

Low power electromagnetic flowmeter system producing zero output signal for zero flow [NASA-CASE-ARC-10362-1] c14 N73-32326

Electromagnetic flow rate meter --- for liquid metals [NASA-CASE-LEW-10981-1] c35 N74-21018

ELECTROMAGNETIC HAMMERS

Method and apparatus for shaping and joining large diameter metal tubes using magnetomotive forces [NASA-CASE-XMF-05114] c15 N71-17650

Portable magnetomotive hammer for metal working [NASA-CASE-XMF-03793] c15 N71-24833

ELECTROMAGNETIC INTERFERENCE

Sealed housing for protecting electronic equipment against electromagnetic interference [NASA-CASE-MSC-12168-1] c09 N71-18600

Method of treating the surface of a glass member [NASA-CASE-GSC-12110-1] c27 N77-32308

ELECTROMAGNETIC MEASUREMENT

Apparatus for measuring backscatter and transmission characteristics of sample segment of large spherical passive satellites [NASA-CASE-XGS-02608] c07 N70-41678

Microcomputerized electric field meter diagnostic and calibration system [NASA-CASE-KSC-11035-1] c33 N77-20343

ELECTROMAGNETIC NOISE

Development of idler feedback system to reduce electronic noise problem in two parametric amplifiers [NASA-CASE-LAR-10253-1] c09 N72-25258

Audio equipment for removing impulse noise from audio signals [NASA-CASE-NPO-11631] c10 N73-12244

Filtering device --- removing electromagnetic noise from voice communication signals [NASA-CASE-MPS-22729-1] c32 N76-21366

ELECTROMAGNETIC PUMPS

Multiducted electromagnetic pump for conductive liquids [NASA-CASE-NPO-10755] c15 N71-27084

ELECTROMAGNETIC RADIATION

Inflatable radar reflector unit - lightweight, highly reflective to electromagnetic radiation, and adaptable for erection and deployment with minimum effort and time [NASA-CASE-XMS-00893] c07 N70-40063

Development of electromagnetic wave transmission line circulator and application to parametric amplifier circuits [NASA-CASE-XNP-02140] c09 N71-23097

Left and right hand circular electromagnetic polarization excitation by phase shifter and hybrid networks [NASA-CASE-GSC-10021-1] c09 N71-24595

Development of method for suppressing excitation of electromagnetic surface waves on dielectric converter antenna [NASA-CASE-XIA-10772] c07 N71-28980

Characteristics of microwave antenna with conical reflectors to generate plane wave front [NASA-CASE-NPO-11661] c07 N73-14130

Method and apparatus for measuring electromagnetic radiation [NASA-CASE-LEW-11159-1] c14 N73-28488

ELECTROMAGNETIC SHIELDING

Shielded flat conductor cable fabricated by electrodeless and electrolytic plating [NASA-CASE-MPS-13687] c09 N71-28691

ELECTROMAGNETIC WAVE FILTERS

Design and characteristics of laser camera system with diffusion filter of small particles with average diameter larger than wavelength of laser light [NASA-CASE-NFO-10417] c16 N71-33410

ELECTROMAGNETIC WAVE TRANSMISSION

Apparatus for measuring backscatter and transmission characteristics of sample segment of large spherical passive satellites [NASA-CASE-XGS-02608] c07 N70-41678

ELECTROMAGNETISM

Electromagnetic braking arrangement for controlling rotor rotation in electric motor [NASA-CASE-XNP-06936] c15 N71-24695

ELECTROMAGNETS

Oscillatory electromagnetic mirror drive system for horizon scanners [NASA-CASE-XLA-03724] c14 N69-27461

Water cooled solenoid capable of producing magnetic field intensities up to 100 kilogauss [NASA-CASE-XNF-01951] c09 N70-41929

Magnetic element position sensing device, using misaligned electromagnets [NASA-CASE-IGS-07514] c23 N71-16099

Electroexplosive safe-arm initiator using electric driven electromagnetic coils and magnets to align charge [NASA-CASE-LAB-10372] c09 N71-18599

Magnetic bearing --- for supplying magnetic fluxes [NASA-CASE-GSC-11079-1] c37 N75-18574

ELECTROMECHANICAL DEVICES

Electromechanical actuator and its use in rocket thrust control valve [NASA-CASE-XNP-05975] c15 N69-23185

Power controlled bimetallic electromechanical actuator for accurate, timely, and reliable response to remote control signal [NASA-CASE-INE-09776] c09 N69-39929

Electro-mechanical circuit for converting floating intelligence signal to common electrically grounded intelligence recorder [NASA-CASE-XAC-00086] c09 N70-33182

Describing device for velocity control of electromechanical drive mechanism of scanning mirror of interferometer [NASA-CASE-IGS-03532] c14 N71-17627

Mechanical actuator wherein linear motion changes to rotational motion [NASA-CASE-IGS-04548] c15 N71-24045

Solid state force measuring electromechanical transducers made of piezoresistive materials [NASA-CASE-EHC-10088] c26 N71-25490

- Electromechanical control actuator system using double differential screws
[NASA-CASE-ERC-10022] c15 N71-26635
- Miniature electromechanical junction transducer operating on piezjunction effect and utilizing epoxy for stress coupling component
[NASA-CASE-ERC-10087] c14 N71-27334
- Service life of electromechanical device for generating sine/cosine functions
[NASA-CASE-LAR-10503-1] c09 N72-21248
- Electromechanical actuator for producing mechanical force and/or motion in response to electrical signals
[NASA-CASE-NPO-11738-1] c09 N73-30185
- A rotary electric device
[NASA-CASE-GSC-12138-1] c33 N77-20344
- Electro-mechanical sine/cosine generator
[NASA-CASE-LAR-11389-1] c33 N77-26387
- ELECTROMETERS**
Vibrating element electrometer producing high conversion gain by input current control of elements resonant frequency displacement amplitude
[NASA-CASE-XAC-02807] c09 N71-23021
- ELECTROMOTIVE FORCES**
Heat activated emf cells with aluminum anode
[NASA-CASE-LPW-11359] c03 N71-28579
- ELECTRON BEAM WELDING**
Portable electron beam welding chamber
[NASA-CASE-LPW-11531] c15 N71-14932
- Development of device to prevent high voltage arcing in electron beam welding
[NASA-CASE-IMP-08522] c15 N71-19486
- ELECTRON BEAMS**
Using electron beam switching for brushless motor commutation
[NASA-CASE-XGS-01451] c09 N71-10677
- Electron beam scanning system for improved image definition and reduced power requirements for video signal transmission
[NASA-CASE-ERC-10552] c09 N71-12539
- Electron beam deflection devices for measuring electric fields
[NASA-CASE-IMP-10289] c14 N71-23699
- Apparatus to determine electric field strength by measuring deflection of electron beam impinging on target
[NASA-CASE-IMP-06617] c09 N71-24843
- Characteristics of infrared photodetectors manufactured from semiconductor material irradiated by electron beam
[NASA-CASE-LAR-10728-1] c14 N73-12445
- Electron beam controller --- using magnetic field to refocus spent electron beam in microwave oscillator tube
[NASA-CASE-LPW-11617-1] c33 N74-10195
- Image tube --- deriving electron beam replica of image
[NASA-CASE-GSC-11602-1] c33 N74-21850
- Very high intensity light source using a cathode ray tube --- electron beams
[NASA-CASE-IMP-01296] c33 N75-27250
- ELECTRON BOMBARDMENT**
Improved cathode containing barium carbonate block and heated tungsten screen for electron bombardment ion thruster
[NASA-CASE-XLE-07087] c06 N69-39889
- Device and method for particle bombardment of specimens in electron microscope and measurement of beam intensities
[NASA-CASE-IGS-01725] c14 N69-39982
- Electric rocket engine with electron bombardment ionization chamber
[NASA-CASE-IMP-04124] c28 N71-21822
- Electronic cathodes for use in electron bombardment ion thrusters
[NASA-CASE-XLE-04501] c09 N71-23190
- Single grid accelerator system for electron bombardment type ion thruster
[NASA-CASE-XLE-10453-2] c28 N73-27699
- ELECTRON DISTRIBUTION**
Measurement of plasma temperature and density using radiation absorption
[NASA-CASE-ABC-10598-1] c75 N74-30156
- ELECTRON EMISSION**
Vacuum thermionic converter with short-circuited triodes and increased electron transmission and conversion efficiency
[NASA-CASE-XLE-01015] c03 N69-39898
- ELECTRON FLUX DENSITY**
Device and method for particle bombardment of specimens in electron microscope and measurement of beam intensities
[NASA-CASE-IGS-01725] c14 N69-39982
- ELECTRON IRRADIATION**
Electrostatic ion engines using high velocity electrons to ionize propellant
[NASA-CASE-XLE-00376] c28 N70-37245
- ELECTRON MICROSCOPES**
Device and method for particle bombardment of specimens in electron microscope and measurement of beam intensities
[NASA-CASE-XGS-01725] c14 N69-39982
- Method of forming aperture plate for electron microscope
[NASA-CASE-ABC-10448-2] c74 N75-12732
- Electron microscope aperture system
[NASA-CASE-ABC-10448-3] c35 N77-14408
- ELECTRON PHOTON CASCADES**
Resistive anode image converter
[NASA-CASE-HQN-10876-1] c33 N76-27473
- ELECTRON PLASMA**
Apparatus for producing highly conductive, high temperature electron plasma with homogenous temperature and pressure distribution
[NASA-CASE-XLA-00147] c25 N70-34661
- ELECTRON SOURCES**
Electron microscope aperture system
[NASA-CASE-ABC-10448-3] c35 N77-14408
- ELECTRON TRANSFER**
Method for treating metal surfaces to prevent secondary electron transmission
[NASA-CASE-IMP-09469] c24 N71-25555
- ELECTRON TRANSITIONS**
Diatomic infrared gasdynamic laser --- for producing different wavelengths
[NASA-CASE-ABC-10370-1] c36 N75-31426
- ELECTRON TUBES**
Direct radiation cooling of linear beam collector tubes
[NASA-CASE-IMP-09227] c15 N69-24319
- Refractory filament series circuitry for radiant heater
[NASA-CASE-XLE-00387] c33 N70-34812
- ELECTRON TUNNELING**
Doped Josephson tunneling junction for use in a sensitive IR detector
[NASA-CASE-NPO-13348-1] c33 N75-31332
- ELECTRONIC CONTROL**
Electronic and mechanical scanning control system for monopulse tracking antenna
[NASA-CASE-XGS-05582] c07 N69-27460
- Electronic circuit system for controlling electric motor speed
[NASA-CASE-IMP-01129] c09 N70-38712
- Scanning signal phase and amplitude electronic control device with hybrid T waveguide junction
[NASA-CASE-NPO-10302] c10 N71-26142
- Ion beam deflector system for electronic thrust vector control for ion propulsion yaw, pitch, and roll forces
[NASA-CASE-LPW-10689-1] c28 N71-26173
- Electronic detection system for peak acceleration limits in vibrational testing of spacecraft components
[NASA-CASE-NPO-10556] c14 N71-27185
- Control and information system for digital telemetry data using analog converter to digitize sensed parameter values
[NASA-CASE-NPO-11016] c08 N72-31226
- ELECTRONIC EQUIPMENT**
Electronic and mechanical scanning control system for monopulse tracking antenna
[NASA-CASE-XGS-05582] c07 N69-27460
- Development of pulse-activated polarographic hydrogen detector
[NASA-CASE-IMP-06531] c14 N71-17575
- Development of stable electronic amplifier adaptable for monolithic and thin film construction
[NASA-CASE-XGS-02812] c09 N71-19466
- Development and characteristics of oscillating static inverter
[NASA-CASE-IGS-05289] c09 N71-19470
- Development of electromagnetic wave transmission line circulator and application to parametric amplifier circuits
[NASA-CASE-IMP-02140] c09 N71-23097

Development of optimum pre-detection diversity combining receiving system adapted for use with amplitude modulation, phase modulation, and frequency modulation systems
[NASA-CASE-XGS-00740] c07 N71-23098

Electronic cathodes for use in electron bombardment ion thrusters
[NASA-CASE-XLZ-04501] c09 N71-23190

Method and apparatus for adjusting thermal conductance in electronic components for space use
[NASA-CASE-XNP-05524] c33 N71-24876

Development and characteristics of solid state acoustic variable time delay line using direct current voltage and radio frequency pulses
[NASA-CASE-ERC-10032] c10 N71-25900

Voltage range selection apparatus for sensing and applying voltages to electronic instruments without loading signal source
[NASA-CASE-XMS-06497] c14 N71-26244

Digital sensor for counting fringes produced by interferometers with improved sensitivity and one photomultiplier tube to eliminate alignment problem
[NASA-CASE-LAR-10204] c14 N71-27215

Device for rapid adjustment and maintenance of temperature in electronic components
[NASA-CASE-XNP-02792] c14 N71-28958

Apparatus with summing network for compression of analog data by decreasing slope threshold sampling
[NASA-CASE-NPO-10769] c08 N72-11171

Readily assembled universal environment housing for electronic equipment
[NASA-CASE-KSC-10031] c15 N72-22486

Lead attachment for high temperature operation of electronic devices
[NASA-CASE-ERC-10224] c09 N72-25261

Development of method and apparatus for detecting surface ions on silicon diodes and transistors
[NASA-CASE-ERC-10325] c15 N72-25457

Development and characteristics of data decoder to process convolution encoded information
[NASA-CASE-NPO-11371] c08 N73-12177

Characteristics of digital data processor using pulse from clock source to derive binary singles to show state of various indicators in processor
[NASA-CASE-GSC-10975-1] c08 N73-13187

Development and characteristics for automatically displaying digits in any desired order using optical techniques
[NASA-CASE-XKS-00348] c09 N73-14215

Thermochromic compositions for detecting heat levels in electronic circuits and devices
[NASA-CASE-NPO-10764-1] c14 N73-14428

Development of phase control coupling for use with phased array antenna
[NASA-CASE-ERC-10285] c10 N73-16206

Device for locating electrically nonlinear objects and determining distance to object by FM signal transmission
[NASA-CASE-KSC-10108] c14 N73-25461

Electronic strain level counter on in-flight aircraft
[NASA-CASE-LAR-10756-1] c32 N73-26910

Automatic vehicle location system
[NASA-CASE-NPO-11850-1] c32 N74-12912

Automatic focus control for facsimile cameras
[NASA-CASE-LAR-11213-1] c35 N75-15014

Electronic analog divider
[NASA-CASE-LEW-11881-1] c33 N77-17354

ELECTRONIC EQUIPMENT TESTS

Apparatus for automatically testing analog to digital converters for open and short circuits
[NASA-CASE-XLA-06713] c14 N71-28991

Signal conditioner test set
[NASA-CASE-KSC-10750-1] c35 N75-12270

ELECTRONIC FILTERS

Self-tuning electronic filter for maintaining constant bandwidth and center frequency gain
[NASA-CASE-ARC-10264-1] c09 N73-20231

Capacitance multiplier and filter synthesizing network
[NASA-CASE-NPO-11948-1] c33 N74-32712

Notch filter
[NASA-CASE-MFS-23303-1] c32 N77-18307

ELECTRONIC MODULES

Thermal conductive, electrically insulated cleavable adhesive connection between electronic module and heat sink
[NASA-CASE-XMS-02087] c09 N70-41717

Fabrication methods for matrices of solar cell submodules
[NASA-CASE-XNP-05821] c03 N71-11056

Development and characteristics of cooling system to maintain temperature of rack mounted electronic modules
[NASA-CASE-MSC-12389] c33 N71-29052

Tool for use in lifting pin supported objects
[NASA-CASE-NPO-13157-1] c37 N74-32918

Phase substitution of spare converter for a failed one of parallel phase staggered converters
[NASA-CASE-NPO-13812-1] c33 N77-30365

ELECTRONIC PACKAGING

Electrical feedthrough connection for printed circuit boards
[NASA-CASE-XNP-01483] c14 N69-27431

Capacitor fabrication by solidifying mixture of ferromagnetic metal particles, nonferromagnetic particles, and dielectric material
[NASA-CASE-LEW-10364-1] c09 N71-13522

Method of evaluating moisture barrier properties of materials used in electronics encapsulation
[NASA-CASE-NPO-10051] c18 N71-24934

Electrical connections for thin film hybrid microcircuits
[NASA-CASE-XMS-02182] c10 N71-28783

Flexible, frangible electrochemical cell and package for operation in low temperature environment
[NASA-CASE-XGS-10010] c03 N72-15986

Development and characteristics of hermetically sealed coaxial package for containing microwave semiconductor components
[NASA-CASE-GSC-10791-1] c15 N73-14469

Techniques for packaging and mounting printed circuit boards
[NASA-CASE-MFS-21919-1] c10 N73-25243

Integrated circuit package with lead structure and method of preparing the same
[NASA-CASE-MFS-21374-1] c33 N74-12951

Tool for use in lifting pin supported objects
[NASA-CASE-NPO-13157-1] c37 N74-32918

ELECTRONIC RECORDING SYSTEMS

Electronic recording system for spatial mass distribution of liquid rocket propellant droplets or vapors ejected from high velocity nozzles
[NASA-CASE-NPO-10185] c10 N71-26339

ELECTRONIC TRANSDUCERS

Fiber optic transducers for monitoring and analysis of vibration in aerospace vehicles and onboard equipment
[NASA-CASE-XNP-02433] c14 N71-10616

Transducer circuit design with single coaxial cable for input and output connections including incorporation into miniaturized catheter transducer
[NASA-CASE-ARC-10132-1] c09 N71-24597

Circuit design for failure sensing and protecting low voltage electric generator and power transmission networks
[NASA-CASE-GSC-10114-1] c10 N71-27366

Diode-quad bridge circuit means
[NASA-CASE-ARC-10364-2(B)] c33 N74-14941

Electromagnetic transducer recording head having a laminated core section and tapered gap
[NASA-CASE-NPO-10711-1] c35 N77-21392

ELECTROPHORESIS

Electrophoretic sample insertion --- device for uniformly distributing samples in flow path
[NASA-CASE-MFS-21395-1] c25 N74-26948

Apparatus for conducting flow electrophoresis in the substantial absence of gravity
[NASA-CASE-MFS-21394-1] c34 N74-27744

Improvements in microelectrophoretic apparatus and process
[NASA-CASE-ARC-11121-1] c25 N78-11216

Automatic multiple-sample applicator and electrophoresis apparatus
[NASA-CASE-ARC-10991-1] c25 N78-14104

ELECTROPHOTOMETERS

Method and photodetector device for locating

- abnormal voids in low density materials
[NASA-CASE-MFS-20044] c14 N71-28993
- ELECTROPHYSIOLOGY**
Dry electrode design with wire sandwiched between two flexible conductive discs for monitoring physiological responses
[NASA-CASE-FRC-10029] c09 N71-24618
- ELECTROPLATING**
Method of plating copper on aluminum to permit conventional soldering of structural aluminum bodies
[NASA-CASE-XLA-08966-1] c17 N71-25903
Shielded flat conductor cable fabricated by electroless and electrolytic plating
[NASA-CASE-MFS-13687] c09 N71-28691
Technique and equipment for sputtering using apertured electrode and pulsed substrate bias
[NASA-CASE-LEW-10920-1] c17 N73-24569
- ELECTROSTATIC CHARGE**
Charged particle analyzer with periodically varying voltage applied across electrostatic deflection members
[NASA-CASE-XAC-05506-1] c24 N71-16095
Electrostatic measurement system --- for contact-electrifying a dielectric
[NASA-CASE-MFS-22129-1] c33 N75-18477
Internal combustion engine with electrostatic discharging fuels
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[NASA-CASE-XNP-00597] c18 N71-23088
Method and apparatus for fluffing, separating, and cleaning fibers
[NASA-CASE-LAR-11224-1] c37 N76-18456
Polymeric electrolytic hygrometer
[NASA-CASE-NPO-13948-1] c35 N77-28470
Composite lamination method
[NASA-CASE-LAR-12019-1] c24 N78-17150

FIELD EFFECT TRANSISTORS

Frequency to analog converters with unipolar field effect transistor for determining potential charge by pulse duration of input signal
[NASA-CASE-XNP-07040] c08 N71-12500
Voltage controlled, variable frequency relaxation oscillator with MOSFET variable current feed
[NASA-CASE-GSC-10022-1] c10 N71-25882
Circuitry for high input impedance video processor with high noise immunity
[NASA-CASE-NPO-10199] c09 N72-17156
Development and characteristics of data multiplexer circuit using field effect transistors arranged in tree switching configuration
[NASA-CASE-NPO-11333] c08 N72-22162
Single integrated circuit chip with field effect transistor
[NASA-CASE-GSC-10835-1] c09 N72-33205
Radiation hardening of MOS devices by boron --- for stabilizing gate threshold potential of

- field effect device
[NASA-CASE-GSC-11425-1] c76 N74-20329
- Stored charge transistor
[NASA-CASE-NPO-11156-2] c33 N75-31331
- Field effect transistor and method of construction thereof
[NASA-CASE-NFS-23312-1] c33 N76-26394
- FIELD EMISSION**
Electrode with multiple columnar conductors for limiting field emission current
[NASA-CASE-EEC-10015-2] c10 N72-27246
- FILAMENT WINDING**
Tool attachment for spreading or moving away loose elements from terminal posts during winding of filamentary elements
[NASA-CASE-XNP-02107] c15 N71-10809
- Fabrication of filament wound propellant tank for cryogenic storage
[NASA-CASE-XLE-03803-2] c15 N71-17651
- Twisted wire or tube superconductor for filament windings
[NASA-CASE-LEW-11015] c26 N73-32571
- Method of making reinforced composite structure
[NASA-CASE-LEW-12619-1] c24 N77-19171
- FILAMENTS**
Refractory filament series circuitry for radiant heater
[NASA-CASE-XLE-00387] c33 N70-34812
- Controlled diffusion reaction process for masking substrate of twisted multifilament superconductive ribbon
[NASA-CASE-LEW-11726-1] c26 N73-26752
- FILLERS**
Filling honeycomb matrix with deaerated paste filler
[NASA-CASE-XMS-01108] c15 N69-24322
- FILM COOLING**
Multislot film cooled pyrolytic graphite rocket nozzle
[NASA-CASE-XNP-04389] c28 N71-20942
- FILMS**
Apparatus for obtaining isotropic irradiation on film emulsion from parallel radiation source
[NASA-CASE-NFS-20095] c24 N72-11595
- Method and apparatus for measurement of trap density and energy distribution in dielectric films
[NASA-CASE-NPO-13443-1] c76 N76-20994
- FILTERS**
Development of filter system for control of outgas contamination in vacuum conditions using absorbent beds of molecular sieve zeolite, silica gel, and charcoal
[NASA-CASE-NFS-14711] c15 N71-26185
- Heated tungsten filter for removing oxygen impurities from cesium
[NASA-CASE-XNP-04262-2] c17 N71-26773
- Centrifugal lyophobic separator
[NASA-CASE-LAR-10194-1] c34 N74-30608
- FINS**
Thrust and attitude control apparatus using jet nozzle in movable canard surface or fin configuration
[NASA-CASE-XLE-03583] c31 N71-17629
- Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft
[NASA-CASE-LAR-10753-1] c08 N74-30421
- FIRE PREVENTION**
Hydrogen fire blink detector for high altitude rocket or ground installation
[NASA-CASE-NFS-15063] c14 N72-25412
- Method and apparatus for checking fire detectors
[NASA-CASE-GSC-11600-1] c35 N74-21019
- Fire protection covering for small diameter missiles
[NASA-CASE-ABC-11104-1] c15 N78-13110
- FIREPROOFING**
Fireproof potassium silicate coating composition, insoluble in water after application
[NASA-CASE-GSC-10072] c18 N71-14014
- Lightweight fire resistant plastic foam for thermal protection of reentry vehicles and aircraft structures
[NASA-CASE-ABC-10180-1] c28 N72-20767
- Intumescent paint containing nitrile rubber for fire protection
[NASA-CASE-ABC-10196-1] c18 N73-13562
- Para-benzoquinone dioxide and concentrated mineral acid processed to yield intumescent or fire resistant, heat insulating materials
[NASA-CASE-ABC-10304-1] c18 N73-26572
- Flexible fire retardant polyisocyanate modified neoprene foam --- for thermal protective devices
[NASA-CASE-ARC-10180-1] c27 N74-12814
- Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant
[NASA-CASE-MSC-14331-1] c27 N76-24405
- Flame retardant spandex type polyurethanes
[NASA-CASE-MSC-14331-2] c27 N78-17213
- FIRES**
Device for generating and controlling combustion products for testing of fire detection system
[NASA-CASE-GSC-11095-1] c14 N72-10375
- Device for detecting hydrogen fires onboard high altitude rockets
[NASA-CASE-NFS-13130] c10 N72-17173
- FIRING (IGNITING)**
Contamination free separation nut eliminating combustion products from ambient surroundings generated by squib firing
[NASA-CASE-XGS-01971] c15 N71-15922
- FISSIONABLE MATERIALS**
Nuclear gaseous reactor for heating working fluid to high temperatures
[NASA-CASE-XLE-00321] c22 N70-34572
- FITTINGS**
Design and development of quick release connector
[NASA-CASE-XLA-01141] c15 N71-13789
- Development and characteristics of strainer for flared tube fitting
[NASA-CASE-XLA-05056] c15 N72-11389
- FIXED WINGS**
Design of supersonic aircraft with novel fixed, swept wing planform
[NASA-CASE-XLA-04451] c02 N71-12243
- FIXTURES**
Tool for use in lifting pin supported objects
[NASA-CASE-NPO-13157-1] c37 N74-32918
- Apparatus for positioning modular components on a vertical or overhead surface
[NASA-CASE-LAR-11465-1] c37 N76-21554
- FLAME PROBES**
Flame detector operable in presence of proton radiation
[NASA-CASE-NFS-21577-1] c19 N74-29410
- FLAME RETARDANTS**
Flame retardant elastomeric compositions
[NASA-CASE-MSC-14331-3] c27 N76-24409
- Flame-resistant liquid oxygen compatible neoprene rubber composition
[NASA-CASE-KSC-11020-1] c27 N77-23267
- Flame retardant spandex type polyurethanes
[NASA-CASE-MSC-14331-2] c27 N78-17213
- FLAME SPRAYING**
Flame or plasma spraying for molybdenum coating of carbon or graphite surfaces to prevent oxidative corrosion
[NASA-CASE-XLA-00302] c15 N71-16077
- Modification of polyurethanes with alkyl halide resins, inorganic salts, and encapsulated volatile and reactive halogen for fuel fire control
[NASA-CASE-ARC-10098-1] c06 N71-24739
- Method of making pressure tight seal for super alloy
[NASA-CASE-LAR-10170-1] c37 N74-11301
- FLAMES**
Anodizing method for providing metal surfaces with temperature reducing coatings against flames
[NASA-CASE-XLE-00035] c33 N71-29151
- Modulated hydrogen ion flame detector
[NASA-CASE-ABC-10322-1] c35 N76-18403
- FLAMMABILITY**
Flammability test chamber for testing materials in certain predetermined environments
[NASA-CASE-KSC-10126] c11 N71-24985
- Development of apparatus for testing burning rate and flammability of materials
[NASA-CASE-XMS-09690] c33 N72-25913
- FLANGES**
Cassegrain antenna subreflector flange for suppressing ground noise and increasing antenna transmitting efficiency
[NASA-CASE-XNP-00683] c09 N70-35425

- Light baffle with oblate hemispheroid surface and shading flange
[NASA-CASE-NPO-10337] c14 N71-15604
- Flanged major modular assembly jig
[NASA-CASE-MSC-19372-1] c39 N76-31562
- FLAPS (CONTROL SURFACES)**
- Upper surface, external flow, jet-augmented flap configuration for high wing jet aircraft for noise reduction
[NASA-CASE-XLA-00087] c02 N70-33332
- Assembly for opening flight capsule stabilizing and decelerating flaps with reference to capsule recovery
[NASA-CASE-XMP-00641] c31 N70-36410
- Direct lift control system having flaps with slots adjacent to their leading edge and particularly adapted for lightweight aircraft
[NASA-CASE-LAR-10249-1] c02 N71-26110
- Reversed cowl flap inlet thrust augmentor --- with adjustable airfoil
[NASA-CASE-ARC-10754-1] c07 N75-24736
- FLARED BODIES**
- Development and characteristics of strainer for flared tube fitting
[NASA-CASE-XLA-05056] c15 N72-11389
- FLAT CONDUCTORS**
- Method of making molded electric connector for use with flat conductor cables
[NASA-CASE-XMP-03498] c15 N71-15986
- Shielded flat conductor cable fabricated by electroless and electrolytic plating
[NASA-CASE-MFS-13687] c09 N71-28691
- Shielded flat conductor cable of ribbonlike wires laminates in thin flexible insulation
[NASA-CASE-MFS-13687-2] c09 N72-22198
- Separable flat cable connector with isolated electrical contacts
[NASA-CASE-MFS-20757] c09 N72-28225
- FLAT PLATES**
- Reduced gravity liquid configuration simulator to study propellant behavior in rocket fuel tanks
[NASA-CASE-XLE-02624] c12 N69-39988
- Exponential horn, copper plate, magnetic hammer, and anvil in apparatus for making diamonds
[NASA-CASE-MFS-20698] c15 N72-20446
- Heat transfer device
[NASA-CASE-MFS-22938-1] c34 N76-18374
- Flat-plate heat pipe
[NASA-CASE-GSC-11998-1] c34 N77-32413
- FLEXIBILITY**
- Weatherproof helix antenna
[NASA-CASE-YKS-08485] c07 N71-19493
- Flexible bellows joint shielding sleeve for propellant transfer pipelines
[NASA-CASE-XNP-01855] c15 N71-28937
- Flexible joint for pressurizable garment
[NASA-CASE-MSC-11072] c54 N74-32546
- Nozzle extraction process and handlemeter for measuring handle
[NASA-CASE-LAR-12147-1] c27 N77-10198
- FLEXIBLE BODIES**
- Flexible backup bar for welding awkwardly shaped structures
[NASA-CASE-XMP-00722] c15 N70-40204
- Characteristics of hermetically sealed electric switch with flexible operating capability
[NASA-CASE-XNP-09808] c09 N71-12518
- Flexible composite membrane structure impervious to extremely reactive chemicals in rocket propellants
[NASA-CASE-XNP-08837] c18 N71-16210
- Development and characteristics of self supporting space vehicle
[NASA-CASE-XLA-00117] c31 N71-17680
- Design and development of flexible tunnel for use by spacecrews in performing extraveicular activities
[NASA-CASE-MSC-12243-1] c05 N71-24728
- Vibration control of flexible bodies in steady accelerating environment
[NASA-CASE-LAR-10106-1] c15 N71-27169
- Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants
[NASA-CASE-XNP-08881] c17 N71-28747
- Development of device for simulating cyclic thermal loading of flexible materials by application of mechanical stresses and deformations
[NASA-CASE-LAR-10270-1] c32 N72-25877
- Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft
[NASA-CASE-LAR-10753-1] c08 N74-30421
- Internally supported flexible duct joint --- device for conducting fluids in high pressure systems
[NASA-CASE-MFS-19193-1] c37 N75-19686
- FLEXIBLE WINGS**
- Aeroflexible wing structure with air scoop for inflating stiffeners with ram air
[NASA-CASE-XLA-06095] c01 N69-39981
- Deployment system for flexible wing with rigid superstructure
[NASA-CASE-XLA-01220] c02 N70-41863
- Development and characteristics of control system for flexible wings
[NASA-CASE-XLA-06958] c02 N71-11038
- FLEXING**
- Two degree inverted flexure from single block of material
[NASA-CASE-ARC-10345-1] c15 N73-12488
- FLIGHT**
- Flow meter for measuring stagnation pressure in boundary layer around high speed flight vehicle
[NASA-CASE-XFR-02007] c12 N71-24692
- FLIGHT ALTITUDE**
- Surface based altitude measuring system for accurately measuring altitude of airborne vehicle
[NASA-CASE-ERC-10412-1] c09 N73-12211
- Terminal guidance system --- for guiding aircraft into preselected altitude and/or heading at terminal point
[NASA-CASE-FRC-10049-1] c04 N74-13420
- FLIGHT CONTROL**
- Aircraft indicator for pilot control of takeoff roll, climbout path and verticle flight path in poor visibility conditions
[NASA-CASE-XLA-00487] c14 N70-40157
- Two axis flight controller with potentiometer control shafts directly coupled to rotatable ball members
[NASA-CASE-XFR-04104] c03 N70-42073
- Development of aircraft control system with high performance electrically controlled and mechanically operated hydraulic valves for precise flight operation
[NASA-CASE-XAC-00048] c02 N71-29128
- Development of flight simulator system to show position of joystick displacement
[NASA-CASE-NFO-11497] c08 N73-25206
- Solid state controller three axes controller
[NASA-CASE-MSC-12394-1] c08 N74-10942
- G-load measuring and indicator apparatus --- for aircraft
[NASA-CASE-ARC-10806] c06 N74-27872
- Integrated lift/drag controller for aircraft
[NASA-CASE-ARC-10456-1] c05 N75-12930
- Servo valve
[NASA-CASE-LAR-11643-1] c37 N75-13268
- Deploy/release system --- model aircraft flight control
[NASA-CASE-XLA-11575-1] c02 N76-16014
- FLIGHT CREWS**
- Survival couch for aircraft or spacecraft crews
[NASA-CASE-XLA-00118] c05 N70-33285
- FLIGHT INSTRUMENTS**
- Crosswind landing gear position indicator
[NASA-CASE-LAR-11941-1] c06 N77-20098
- FLIGHT RECORDERS**
- Event recorder with constant speed motor which rotates recording disk
[NASA-CASE-XLA-01832] c14 N71-21006
- FLIGHT SAFETY**
- Aerial capsule emergency separation device using jettisonable towers
[NASA-CASE-XLA-00115] c03 N70-33343
- Development and characteristics of electronic signalling system and data processing equipment for warning systems to avoid midair collisions between aircraft
[NASA-CASE-LAR-10717-1] c21 N73-30641
- FLIGHT SIMULATION**
- Lunar landing flight research vehicle
[NASA-CASE-XFR-00929] c31 N70-34966

- Television simulation for aircraft and space flight
[NASA-CASE-IFR-03107] c09 N71-19449
- Electrical circuit selection device for simulating stage separation of flight vehicle
[NASA-CASE-IXS-04631] c10 N71-23663
- FLIGHT SIMULATORS**
- Centrifuge mounted motion simulator with elevator mechanism
[NASA-CASE-XAC-00399] c11 N70-34815
- Table structure and rotating magnet system simulating gravitational forces on spacecraft and displaying trajectories between Earth, Venus, and Mercury
[NASA-CASE-IXP-00708] c14 N70-35394
- Wind tunnel test section for simulating high Reynolds number over transonic speed range
[NASA-CASE-MFS-20509] c11 N72-17183
- Development of flight simulator system to show position of joystick displacement
[NASA-CASE-NPO-11497] c08 N73-25206
- Apparatus for applying simulator g-forces to an arm of an aircraft simulator pilot
[NASA-CASE-LAR-10550-1] c09 N74-30597
- Vehicle simulator binocular multiplanar visual display system
[NASA-CASE-ARC-10808-1] c09 N76-24280
- A seat cushion to provide realistic acceleration cues for aircraft simulator pilots
[NASA-CASE-LAR-12149-1] c54 N77-31787
- Full color hybrid display for aircraft simulators --- landing aids
[NASA-CASE-ARC-10903-1] c09 N78-18083
- FLIGHT TESTS**
- Device for measuring drag forces in flight tests
[NASA-CASE-XLA-00113] c14 N70-33386
- FLIGHT VEHICLES**
- Construction of leading edges of surfaces for aerial vehicles performing from subsonic to above transonic speeds
[NASA-CASE-XLA-01486] c01 N71-23497
- Electro-optical attitude sensing device for landing approach of flight vehicle
[NASA-CASE-IXS-01994-1] c14 N72-17326
- Design and development of active control system for air cushion vehicle to reduce or eliminate effects of excessive vertical vibratory acceleration
[NASA-CASE-LAR-10531-1] c02 N73-13023
- FLIP-FLOPS**
- Bistable multivibrator circuits operating at high speed and low power dissipation
[NASA-CASE-XGS-00823] c10 N71-15910
- Stepping motor control apparatus exciting windings in proper time sequence to cause motor to rotate in either direction
[NASA-CASE-GSC-10366-1] c10 N71-18772
- Interrogator and current driver circuit for combination with transistor flip-flop circuit
[NASA-CASE-XGS-03058] c10 N71-19547
- FLOATING**
- Floating baffle for tank drain
[NASA-CASE-KSC-10639] c15 N73-26472
- Modification of one man life raft
[NASA-CASE-LAR-10241-1] c54 N74-14845
- FLOATS**
- Magnetically centered liquid column float
[NASA-CASE-XAC-00030] c14 N70-34820
- FLOTATION**
- Development and characteristics of rescue litter with inflatable flotation device for water rescue application
[NASA-CASE-IXS-04170] c05 N71-22748
- FLOW CHAMBERS**
- Multi-chamber controllable heat pipe
[NASA-CASE-ARC-10199] c34 N78-17337
- FLOW DIRECTION INDICATORS**
- Electric circuit for reversing direction of current flow
[NASA-CASE-IXP-00952] c10 N71-23271
- Flow angle sensor and remote readout system for use with cryogenic fluids
[NASA-CASE-XLE-04503] c14 N71-24864
- FLOW DISTRIBUTION**
- Multiple orifice fluid flow control valve to provide different flow patterns
[NASA-CASE-BRC-10208] c15 N70-10867
- Photographing surface flow patterns on wind tunnel test models
[NASA-CASE-XLA-01353] c14 N70-41366
- Color photointerpretation of interference colors reflected from thin film oil-coated components in moving gases for gas flow visualization
[NASA-CASE-IXP-01779] c12 N71-20815
- Dual wavelength scanning Doppler velocimeter --- without perturbation of flow fields
[NASA-CASE-ARC-10637-1] c35 N75-16783
- Controlled separation combustor --- airflow distribution in gas turbine engines
[NASA-CASE-XLEW-11593-1] c20 N76-14190
- FLOW MEASUREMENT**
- Collapsible flow test device for obstructed passages
[NASA-CASE-IXS-04917] c14 N69-24257
- Simulated fuel assembly-type flow measurement apparatus for coolant flow in reactor core
[NASA-CASE-XLE-00724] c14 N70-34669
- Mass flow meter containing beta source for measuring nonpolar liquid flow
[NASA-CASE-MFS-20485] c14 N72-11365
- Instrument for measuring magnitude and direction of flow velocity in flow field
[NASA-CASE-LAR-10855-1] c14 N73-13415
- Flow measuring apparatus
[NASA-CASE-XLEW-12078-1] c35 N75-30503
- Method for making a hot wire anemometer and product thereof
[NASA-CASE-ARC-10900-1] c35 N77-24454
- FLOW REGULATORS**
- Antibacklash circuit for hydraulic drive system
[NASA-CASE-IXP-01020] c03 N71-12260
- Tubular flow restrictor for gas flow control in pipeline
[NASA-CASE-NPO-10117] c15 N71-15608
- Fluid flow control valve for regulating fluids in molecular quantities
[NASA-CASE-XLE-00703] c15 N71-15967
- Control of gas flow from pressurized vessel by thermal expansion of metal plug
[NASA-CASE-NPO-10298] c12 N71-17661
- Semitoroidal diaphragm cavitating flow control valve
[NASA-CASE-IXP-09704] c12 N71-18615
- Describing device for changing flow rate of fluid in duct in response to change in temperature
[NASA-CASE-MFS-14259] c15 N71-19213
- Pneumatic servoamplifier for controlling flow regulation
[NASA-CASE-MSC-12121-1] c15 N71-27147
- Gas flow control device, including housing and input port
[NASA-CASE-NPO-11479] c15 N73-13462
- Flow compensating pressure regulator --- for ophthalmic applications
[NASA-CASE-XLEW-12718-1] c35 N77-20408
- Pressure modulating valve
[NASA-CASE-MSC-14905-1] c37 N77-28487
- FLOW STABILITY**
- Detonation reaction engine comprising outer housing enclosing pair of inner walls for continuous flow
[NASA-CASE-IXP-06926] c28 N71-22983
- Apparatus for establishing flow of a fluid mass having a known velocity
[NASA-CASE-MFS-21424-1] c34 N74-27730
- FLOW VELOCITY**
- Continuous variation of propellant flow and thrust by application of liquid foam flow theory to injection orifice
[NASA-CASE-XLE-00177] c28 N70-40367
- Measuring density of single and two-phase cryogenic fluids in rocket fuel tanks
[NASA-CASE-XLE-00688] c14 N70-41330
- Device for adding water to high velocity exhaust jets to reduce velocity, noise, and temperature
[NASA-CASE-IXP-01813] c28 N70-41582
- Positive displacement flowmeter for measuring extremely low flows of fluid with self calibrating features
[NASA-CASE-IXP-02822] c14 N70-41994
- Zeta potential flowmeter for measuring very slow to very high flows
[NASA-CASE-IXP-06509] c14 N71-23226
- Device for simultaneously determining density, velocity, and temperature of streaming gas
[NASA-CASE-XLA-03375] c16 N71-24074

- Doppler shifted laser beam as fluid velocity sensor
[NASA-CASE-XAC-10770-1] c16 N71-24828
- Flowmeters for sensing low fluid flow rate and pressure for application to respiration rate studies
[NASA-CASE-FRC-10022] c12 N71-26546
- Force balanced throttle valve for fuel control in rocket engines
[NASA-CASE-WPO-10808] c15 N71-27432
- Flow rate switch for detecting variations in fluid flow velocity through conduits of pressurized systems
[NASA-CASE-NPO-10722] c09 N72-20199
- Instrument for measuring magnitude and direction of flow velocity in flow field
[NASA-CASE-LAB-10855-1] c14 N73-13415
- Apparatus for establishing flow of a fluid mass having a known velocity
[NASA-CASE-MFS-21424-1] c34 N74-27730
- Wind tunnel flow generation section
[NASA-CASE-ABC-10710-1] c09 N75-12969
- Combined dual scatter, local oscillator laser Doppler velocimeter
[NASA-CASE-ABC-10642-1] c36 N76-14447
- System for measuring three fluctuating velocity components in a turbulently flowing fluid
[NASA-CASE-ABC-10974-1] c34 N77-27345
- Fluid velocity measuring device
[NASA-CASE-LAB-11729-1] c34 N78-15438
- FLOW VISUALIZATION**
- Method and apparatus for measuring shock layer radiation distribution about high velocity objects
[NASA-CASE-XAC-02970] c14 N69-39896
- Color photointerpretation of interference colors reflected from thin film oil-coated components in moving gases for gas flow visualization
[NASA-CASE-XMF-01779] c12 N71-20815
- FLOWMETERS**
- Collapsible flow test device for obstructed passages
[NASA-CASE-XMS-04917] c14 N69-24257
- Simulated fuel assembly-type flow measurement apparatus for coolant flow in reactor core
[NASA-CASE-XLE-00724] c14 N70-34669
- Positive displacement flowmeter for measuring extremely low flows of fluid with self calibrating features
[NASA-CASE-XMF-02822] c14 N70-41994
- Heated element sensor for fluid flow detection in thermal conductive conduit with adaptive means to determine flow rate and direction
[NASA-CASE-MSC-12084-1] c12 N71-17569
- Describing laser Doppler velocimeter for measuring mean velocity and turbulence of fluid flow
[NASA-CASE-MFS-20386] c21 N71-19212
- Zeta potential flowmeter for measuring very slow to very high flows
[NASA-CASE-XNP-06509] c14 N71-23226
- Flow meter for measuring stagnation pressure in boundary layer around high speed flight vehicle
[NASA-CASE-XFH-02007] c12 N71-24692
- Doppler shifted laser beam as fluid velocity sensor
[NASA-CASE-XAC-10770-1] c16 N71-24828
- Flowmeters for sensing low fluid flow rate and pressure for application to respiration rate studies
[NASA-CASE-FRC-10022] c12 N71-26546
- Mass flow meter containing beta source for measuring nonpolar liquid flow
[NASA-CASE-MFS-20485] c14 N72-11365
- Respiratory analysis system to determine gas flow rate and frequency of respiration and expiration cycles in real time
[NASA-CASE-MSC-13436-1] c05 N73-32015
- Low power electromagnetic flowmeter system producing zero output signal for zero flow
[NASA-CASE-ABC-10362-1] c14 N73-32326
- Electromagnetic flow rate meter --- for liquid metals
[NASA-CASE-LEW-10981-1] c35 N74-21018
- Leak detector
[NASA-CASE-MFS-21761-1] c35 N75-15931
- System for measuring three fluctuating velocity components in a turbulently flowing fluid
[NASA-CASE-ABC-10974-1] c34 N77-27345
- FLUID AMPLIFIERS**
- Fluid jet amplifier with fluid from jet nozzle deflected by inlet pressure
[NASA-CASE-XLE-03512] c12 N69-21466
- Multiple vortex amplifier system as fluid valve
[NASA-CASE-XMF-04709] c15 N71-15609
- Shear modulated fluid amplifier of high pressure hydraulic vortex amplifier type
[NASA-CASE-MFS-10412] c12 N71-17578
- Development of vortex fluid amplifier for throttling rocket exhaust
[NASA-CASE-LEW-10374-1] c28 N73-13773
- Fluid pressure amplifier and system
[NASA-CASE-LAR-10868-1] c33 N74-11050
- FLUID FILMS**
- Journal bearings --- for lubricant films
[NASA-CASE-LEW-11076-1] c37 N74-21061
- Fluid journal bearings
[NASA-CASE-LEW-11076-4] c37 N76-15461
- Fluid seal for rotating shafts
[NASA-CASE-LEW-11676-1] c37 N76-22541
- FLUID FILTERS**
- Absorbent apparatus for separating gas from liquid-gas stream used in environmental control under zero gravity conditions
[NASA-CASE-XMS-01492] c05 N70-41297
- Compact high pressure filter for rocket fuel lines
[NASA-CASE-XNP-00732] c28 N70-41447
- Development of liquid separating system using capillary device connected to flexible bladder storage chamber
[NASA-CASE-XMS-13052] c14 N71-20427
- Fluid control apparatus and method
[NASA-CASE-LAR-11110-1] c34 N75-26282
- Filter regeneration systems --- a system for regenerating a system filter in a fluid flow line
[NASA-CASE-MSC-14273-1] c34 N75-33342
- Quick disconnect filter coupling
[NASA-CASE-MFS-22323-1] c37 N76-14463
- FLUID FLOW**
- Fluid jet amplifier with fluid from jet nozzle deflected by inlet pressure
[NASA-CASE-XLE-03512] c12 N69-21466
- Pneumatic system for cyclic control of fluid flow in pneumatic device
[NASA-CASE-XMS-04843] c03 N69-21469
- Multiple orifice fluid flow control valve to provide different flow patterns
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[NASA-CASE-XGS-01022] c07 N71-16088
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[NASA-CASE-INP-01056] c14 N71-23041

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[NASA-CASE-ARC-10308-1] c06 N72-31141

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[NASA-CASE-NPO-13464-1] c44 N76-18642
- Hydrogen rich gas generator
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- Hydrogen rich gas generator
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[NASA-CASE-NPO-13945-1] c36 N77-19418
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- [NASA-CASE-LEW-10250-1] c22 N71-28759
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- [NASA-CASE-XLE-00321] c22 N70-34572
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- [NASA-CASE-XMF-06926] c28 N71-22983
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- [NASA-CASE-LAR-10766-1] c14 N72-21432
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[NASA-CASE-MFS-21364-1] c37 N74-18126
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[NASA-CASE-XGS-01881] c09 N70-40123
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[NASA-CASE-XLA-07391] c12 N71-17579
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[NASA-CASE-XMS-09352] c09 N71-23316
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[NASA-CASE-MFS-14772] c15 N71-17692
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[NASA-CASE-XGS-04227] c15 N71-21744
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[NASA-CASE-MFS-14971] c15 N71-24984
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[NASA-CASE-MFS-21424-1] c34 N74-27730
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[NASA-CASE-XNP-01544] c28 N70-34162
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[NASA-CASE-XNP-01669] c21 N71-23289
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[NASA-CASE-GSC-10306-1] c15 N71-24694
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[NASA-CASE-MSC-10959] c15 N71-26243
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[NASA-CASE-GSC-10556-1] c31 N71-26537
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[NASA-CASE-MFS-23551-1] c04 N76-26175
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[NASA-CASE-XLE-10326-2] c15 N72-29488
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[NASA-CASE-XGS-04531] c03 N69-24267
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[NASA-CASE-XLE-02624] c12 N69-39988
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[NASA-CASE-XLE-08569] c03 N71-23449
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[NASA-CASE-NPO-10575] c03 N72-25019
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[NASA-CASE-LEW-10278-1] c15 N71-28582
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[NASA-CASE-LAR-10385-3] c74 N78-15879
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[NASA-CASE-NPO-10682] c15 N70-34699
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[NASA-CASE-XGS-00886] c03 N71-11053
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[NASA-CASE-ARC-10714-1] c27 N76-15310
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[NASA-CASE-ARC-10456-1] c05 N75-12930

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[NASA-CASE-LAR-10626-1] c19 N74-21015

GLOVES
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[NASA-CASE-NSC-13054] c54 N78-17677

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[NASA-CASE-ARC-10975-1] c54 N77-24771

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[NASA-CASE-XLE-10529] c14 N69-23191

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[NASA-CASE-GSC-11077-1] c02 N73-13008

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[NASA-CASE-XNP-09770] c15 N71-20440

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[NASA-CASE-XGS-00963] c15 N69-39735
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[NASA-CASE-MPS-21077-1] c24 N75-28135
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[NASA-CASE-XGS-01036] c14 N70-40003

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[NASA-CASE-XNP-05844] c14 N71-17587

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[NASA-CASE-ARC-10444-1] c16 N73-33397
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[NASA-CASE-MPS-22758-1] c70 N75-26789

GRAVITATIONAL CONSTANT
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[NASA-CASE-XNP-00424] c11 N70-38196

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[NASA-CASE-ARC-10722-1] c51 N75-25503

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[NASA-CASE-XNP-08274] c10 N71-13537

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[NASA-CASE-IAC-01591] c31 N71-17729
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[NASA-CASE-XLA-03132] c31 N71-22969

GRAVITY GRADIOMETERS
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[NASA-CASE-XNP-00424] c11 N70-38196
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[NASA-CASE-GSC-10555-1] c21 N71-27324

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[NASA-CASE-LEW-11694-1] c20 N75-18310
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Method of constructing dished ion thruster grids to provide hole array spacing compensation
[NASA-CASE-LEW-11876-1] c20 N76-21276
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[NASA-CASE-NFO-13087-2] c44 N76-31666

GRINDING (MATERIAL REMOVAL)
Laser device for removing material from rotating object for dynamic balancing
[NASA-CASE-MPS-11279] c16 N71-20400
Grinding mixtures of powdered metals and inert fillers for conversion to halide
[NASA-CASE-LEW-10450-1] c15 N72-25448

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Grinding arrangement for ball nose milling cutters
[NASA-CASE-LAR-10450-1] c37 N74-27905

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Nonreusable energy absorbing device comprising ring member with plurality of recesses, cutting members, and guide member mounted in each recess
[NASA-CASE-XNP-10040] c15 N71-22877
Spiral groove seal --- for hydraulic rotating shaft
[NASA-CASE-LEW-10326-3] c37 N74-10474
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[NASA-CASE-XLE-10326-4] c37 N74-15125
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[NASA-CASE-LEW-12417-1] c07 N76-22198

GROUND EFFECT MACHINES
Hovering type flying vehicle design and principle mechanisms for manned or unmanned use
[NASA-CASE-MSC-12111-1] c02 N71-11039
Platform with several ground effect pads and plenum chambers
[NASA-CASE-MPS-14685] c31 N71-15689
Design and development of active control system for air cushion vehicle to reduce or eliminate effects of excessive vertical vibratory acceleration
[NASA-CASE-LAR-10531-1] c02 N73-13023
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[NASA-CASE-LAR-10256-1] c85 N74-34672

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[NASA-CASE-XNP-00580] c11 N70-35383

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Traffic control system for supersonic transports using synchronous satellite for data relay between vehicles and ground station
[NASA-CASE-GSC-10087-1] c02 N71-19287
Spacecraft transponder and ground station radar system for mapping planetary surfaces
[NASA-CASE-NFO-11001] c07 N72-21118
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[NASA-CASE-NFO-13836-1] c32 N78-15323

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[NASA-CASE-XNS-05454-1] c07 N71-12391
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[NASA-CASE-XNS-03338] c15 N71-24043

GROUND-AIR-GROUND COMMUNICATIONS
Fabry-Perot interferometer retrodirective reflector modulator for optical communication

GROUP VELOCITY

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Closed loop radio communication ranging system
to determine distance between moving airborne
vehicle and fixed ground station
[NASA-CASE-XNP-01501] c21 N70-41930
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transmitter and aircraft borne receiver/decoder
[NASA-CASE-EEC-10324] c07 N72-25173

GROUP VELOCITY
Swept group delay measurement
[NASA-CASE-NPO-13909-1] c33 N77-17358

GUIDANCE (MOTION)
Hovering type flying vehicle design and
principle mechanisms for manned or unmanned use
[NASA-CASE-MSC-12111-1] c02 N71-11039
Development of adjustable attitude guide block
for setting pins perpendicular to irregular
convex work surface
[NASA-CASE-XLA-07911] c15 N71-15571
Longitudinal film gate and lock mechanism for
securing film in motion picture cameras under
vibration and high acceleration loads
[NASA-CASE-LAR-10686] c14 N71-28935
Combination guide and rotary bearing for freely
moving shaft
[NASA-CASE-XLA-00013] c15 N71-29136
Guide member for stabilizing cable of open shaft
elevator
[NASA-CASE-KSC-10513] c15 N72-25453

GUIDANCE SENSORS
Light sensitive digital aspect sensor for
attitude control of earth satellites or space
probes
[NASA-CASE-IGS-00359] c14 N70-34158
Guidance analyzer having suspended spacecraft
simulating sphere for astronavigation
[NASA-CASE-XNP-09572] c14 N71-15621
Optical gauging system for monitoring machine
tool alignment
[NASA-CASE-XAC-09489-1] c15 N71-26673
Development of light sensing system for
controlled orientation of object relative to
sun or other light source
[NASA-CASE-NPO-11311] c14 N72-25414
Sun direction detection system
[NASA-CASE-NPO-13722-1] c74 N77-22951

GUN LAUNCHERS
Self-obturator gas-operated launcher for
launching projectiles in decontaminated medium
[NASA-CASE-NPO-11013] c11 N72-22247

GUN PROPELLANTS
Nitramine propellants
[NASA-CASE-NPO-14103-1] c28 N77-25346

GUNN EFFECT
Voltage tunable Gunn effect semiconductor for
microwave generation
[NASA-CASE-XER-07894] c09 N71-18721
Gunn effect microwave diodes with RF shielding
[NASA-CASE-ERC-10119] c26 N72-21701
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- Development of pulse-activated polarographic hydrogen detector
[NASA-CASE-XNP-06531] c14 N71-17575
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Physical correction filter for improving the optical quality of an image
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[NASA-CASE-ERC-10001] c23 N71-24868
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[NASA-CASE-MSC-12404-1] c23 N73-13661
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[NASA-CASE-GSC-11487-1] c14 N73-30393
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[NASA-CASE-GSC-12263-1] c35 N77-29471
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[NASA-CASE-ARC-10903-1] c09 N78-18083

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[NASA-CASE-LAR-10547-1] c31 N74-13177

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[NASA-CASE-XMF-08651] c06 N71-11236
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two amines and two aldehydes
[NASA-CASE-XMF-08655] c06 N71-11239
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acetal amine reactions
[NASA-CASE-XMF-08652] c06 N71-11243
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[NASA-CASE-XMF-03074] c06 N71-24740

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Stretcher with rigid head and neck support with
capability of supporting immobilized person in
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[NASA-CASE-XMF-06589] c05 N71-23159

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impact energy absorbing system
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and umbilical towers
[NASA-CASE-LAR-10193-1] c15 N71-27146

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Impact testing machine for imparting large
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[NASA-CASE-XGS-01418] c09 N71-23573
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[NASA-CASE-XLE-00103] c28 N70-33241
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[NASA-CASE-XLE-03157] c28 N71-24736
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[NASA-CASE-LEW-11915-1] c35 N76-14431

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[NASA-CASE-HQN-10541-2] c15 N71-27135
- Optical communication system with gas filled waveguide for laser beam transmission
[NASA-CASE-HQN-10541-4] c16 N71-27183
- Design and development of multichannel laser remote control system using modulated helium-neon laser as transmitter and light collector as receiving antenna
[NASA-CASE-LAR-10311-1] c16 N73-16536
- Performance of ac power supply developed for CO₂ laser system
[NASA-CASE-GSC-11222-1] c16 N73-32391
- Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control
[NASA-CASE-NPO-11317-2] c36 N74-13205
- Apparatus for scanning the surface of a cylindrical body
[NASA-CASE-NPO-11861-1] c36 N74-20009
- Optically detonated explosive device
[NASA-CASE-NPO-11743-1] c28 N74-27425
- Clear air turbulence detector
[NASA-CASE-MFS-21244-1] c36 N75-15028
- Dually mode locked Nd:YAG laser
[NASA-CASE-GSC-11746-1] c36 N75-19654
- Laser head for simultaneous optical pumping of several dye lasers --- with single flash lamp
[NASA-CASE-LAR-11341-1] c36 N75-19655
- Acoustically controlled distributed feedback laser
[NASA-CASE-NPO-13175-1] c36 N75-31427
- Optical noise suppression device and method --- laser light exposing film
[NASA-CASE-MSC-12640-1] c74 N76-31998
- Length controlled stabilized mode-lock Nd:YAG laser
[NASA-CASE-GSC-11571-1] c36 N77-25499
- Apparatus for photon excited catalysis
[NASA-CASE-NPO-13566-1] c25 N77-32255
- LASER PLASMAS**
- Continuous plasma laser --- method and apparatus for producing intense, coherent, monochromatic light from low temperature plasma
[NASA-CASE-XNP-04167-3] c36 N77-19416
- LASER PUMPING**
- A laser apparatus
[NASA-CASE-GSC-12237-1] c36 N78-10445
- LASER RANGE/TRACKER**
- Laser beam projector for continuous, precise alignment between target, laser generator, and astronomical telescope during tracking
[NASA-CASE-NPO-11087] c23 N71-29125
- LASER WINDOWS**
- Optical scanner --- laser Doppler velocimeters
[NASA-CASE-LAR-11711-1] c74 N78-17866
- LASERS**
- Laser device for removing material from rotating object for dynamic balancing
[NASA-CASE-MFS-11279] c16 N71-20400
- Design and development of optical interferometer with laser light source for application to schlieren systems
[NASA-CASE-XLA-04295] c16 N71-24170
- Self-generating optical frequency waveguide
[NASA-CASE-HQN-10541-1] c07 N71-26291
- Design and characteristics of laser camera system with diffusion filter of small particles with average diameter larger than wavelength of laser light
[NASA-CASE-NPO-10417] c16 N71-33410
- Nondestructive stress testing of solder joints on printed circuit boards by holographic techniques
[NASA-CASE-MFS-20687] c16 N72-11415
- Optical sensing of supersonic flows by correlating deflections in laser beams through flow
[NASA-CASE-MFS-20642] c14 N72-21407
- Laser technique for breaking ice in ship path
[NASA-CASE-LAR-10815-1] c16 N72-22520
- Design of precision vertical alignment system using laser with gravitationally sensitive cavity
[NASA-CASE-ARC-10444-1] c16 N73-33397
- Tunable cavity resonator with ramp shaped supports
[NASA-CASE-HQN-10790-1] c36 N74-11313
- Short range laser obstacle detector --- for surface vehicles using laser diode array
[NASA-CASE-NPO-11856-1] c36 N74-15145

- Long range laser traversing system
[NASA-CASE-GSC-11262-1] c36 N74-21091
- Deep trap, laser activated image converting system
[NASA-CASE-NFO-13131-1] c36 N75-19652
- Laser system with an antiresonant optical ring
[NASA-CASE-BQN-10844-1] c36 N75-19653
- Acoustically controlled distributed feedback laser
[NASA-CASE-NFO-13175-1] c36 N75-31427
- Method and apparatus for splitting a beam of energy
[NASA-CASE-GSC-12083-1] c36 N76-15451
- Method and apparatus for generating coherent radiation in the ultra-violet region and above by use of distributed feedback
[NASA-CASE-NFO-13346-1] c36 N76-29575
- Polarization compensator for optical communications
[NASA-CASE-GSC-11782-1] c74 N76-30053
- Gregorian all-reflective optical system
[NASA-CASE-GSC-12058-1] c74 N77-26942
- Wideband heterodyne receiver for laser communication system
[NASA-CASE-GSC-12053-1] c32 N77-28346
- Shock isolator for operating a diode laser and closed-cycle refrigerator
[NASA-CASE-GSC-12297-1] c37 N78-19515
- LATCHES**
- Bolt-latch mechanism for releasing despinn weights from space vehicle
[NASA-CASE-XLA-00679] c15 N70-38601
- Transparent polycarbonate resin, shell helmet and latch design for high altitude and space flight
[NASA-CASE-XMS-04935] c05 N71-11190
- Quick disconnect latch and handle combination for mounting articles on walls or supporting bases in spacecraft under zero gravity conditions
[NASA-CASE-NFS-11132] c15 N71-17649
- Design, development, and characteristics of latching mechanism for operation in limited access areas
[NASA-CASE-XMS-03745] c15 N71-21076
- Latching mechanism with pivoting catch and self-contained spring ejector
[NASA-CASE-XLA-03538] c15 N71-24897
- Latch for fastening spacecraft docking rings
[NASA-CASE-MSC-15474-1] c15 N71-26162
- Latch mechanism
[NASA-CASE-MSC-12549-1] c37 N74-27903
- Latching device
[NASA-CASE-NFS-21606-1] c37 N75-19685
- Load regulating latch
[NASA-CASE-MSC-19535-1] c37 N77-32499
- Helmet latching and attaching ring
[NASA-CASE-XMS-04670] c54 N78-17678
- LATERAL CONTROL**
- Three-axis controller operated by hand-wrist motion for yaw, pitch, and roll control
[NASA-CASE-XAC-01404] c05 N70-41581
- Star sensor system for roll attitude control of spacecraft
[NASA-CASE-XNP-01307] c21 N70-41856
- Supersonic or hypersonic vehicle control system comprising elevons with hinge line sweep and free of adverse aerodynamic cross coupling
[NASA-CASE-XLA-08967] c02 N71-27088
- Vortex-lift roll-control device
[NASA-CASE-LAR-11868-2] c08 N77-31176
- LATHES**
- Rotary spindle lathe attachments for machining geometrical cones
[NASA-CASE-XMS-04292] c15 N71-22722
- Lathe tool and holder combination for machining resin impregnated fiberglass cloth laminates
[NASA-CASE-XLA-10470] c15 N72-21489
- LAUNCH ESCAPE SYSTEMS**
- Emergency escape cabin system for launch towers
[NASA-CASE-XKS-02342] c05 N71-11199
- Ejector for separating astronaut from ejection seat during prelaunch or initial launch phase of flight
[NASA-CASE-XMS-04625] c05 N71-20718
- LAUNCH VEHICLE CONFIGURATIONS**
- Rotating launch device for a remotely piloted aircraft
[NASA-CASE-ARC-10979-1] c09 N77-19076
- LAUNCH VEHICLES**
- Support techniques for restraint of slender bodies such as launch vehicles
[NASA-CASE-XLA-02704] c11 N69-21540
- Microleak detector mounted on weld seam of propellant tank of launch vehicle
[NASA-CASE-XMF-02307] c14 N71-10779
- LAUNCHING PADS**
- Launch pad missile release system with bending moment change rate reduction in thrust distribution structure at liftoff
[NASA-CASE-XMF-03198] c30 N70-40353
- Remotely actuated quick disconnect for tubular umbilical conduits used to transfer fluids from ground to rocket vehicle
[NASA-CASE-XLA-01396] c03 N71-12259
- Portable equipment for validating C band launch pad antennas and transmission lines used for spacecraft checkout
[NASA-CASE-XKS-10543] c07 N71-26292
- LEAD (METAL)**
- Lead-oxygen dc power supply system having a closed loop oxygen and water system
[NASA-CASE-NFS-23059-1] c44 N76-27664
- LEAD TELLURIDES**
- Bonding method for improving contact between lead telluride thermoelectric elements and tungsten electrodes
[NASA-CASE-XGS-04554] c15 N69-39786
- Procedure for segmenting lead telluride and silicon germanium thermoelectric elements to obtain composite elements effective over wide temperature range
[NASA-CASE-XGS-05718] c26 N71-16037
- LEADING EDGES**
- Leading edge design for hypersonic reentry vehicles
[NASA-CASE-XLA-00165] c31 N70-33242
- Construction of leading edges of surfaces for aerial vehicles performing from subsonic to above transonic speeds
[NASA-CASE-XLA-01486] c01 N71-23497
- Leading edge protection for composite blades
[NASA-CASE-XLEW-12550-1] c24 N77-19170
- LEAKAGE**
- Rocket chamber leak test fixture using tubular plug
[NASA-CASE-XFR-09479] c14 N69-27503
- Microleak detector mounted on weld seam of propellant tank of launch vehicle
[NASA-CASE-XMF-02307] c14 N71-10779
- Fluid leakage detection system with automatic monitoring capability
[NASA-CASE-LAR-10323-1] c12 N71-17573
- Space suit using nonflexible material with low leakage and providing protection against thermal extremes, physical punctures, and radiation with high mobility articulation
[NASA-CASE-XAC-07043] c05 N71-23161
- Development of apparatus and method for testing leakage of large tanks
[NASA-CASE-XMF-02392] c32 N71-24285
- Gas leak detection in evacuated systems using ultraviolet radiation probe
[NASA-CASE-ERC-10034] c15 N71-24896
- Method for locating leaks in hermetically sealed containers
[NASA-CASE-ERC-10045] c15 N71-24910
- Volume displacement transducer for leak detection in hermetically sealed semiconductor devices
[NASA-CASE-ERC-10033] c14 N71-26672
- Test chambers with orifice and helium mass spectrometer for detecting leak rate of encapsulated semiconductor devices
[NASA-CASE-ERC-10150] c14 N71-28992
- Leak detector
[NASA-CASE-NFS-21761-1] c35 N75-15931
- Vacuum leak detector
[NASA-CASE-LAR-11237-1] c35 N75-19612
- LEG (ANATOMY)**
- Actuator device for artificial leg
[NASA-CASE-NFS-23225-1] c52 N77-14735
- Rotational joint assembly for the prosthetic leg
[NASA-CASE-KSC-11004-1] c54 N77-30749
- Mechanical energy storage device for hip disarticulation
[NASA-CASE-ARC-10916-1] c52 N78-10686
- LENS DESIGN**
- Device for measuring the contour of a surface
[NASA-CASE-LAR-11869-1] c35 N77-10497

LENSES

- Lens assembly for solar furnace or solar simulator
[NASA-CASE-XNP-04111] c14 N71-15622
- Camera adapter design for image magnification including lens and illuminator
[NASA-CASE-XMP-03844-1] c14 N71-26474
- Development and characteristics of Petzval type objective including field shaping lens for focusing light of specified wavelength band on curved photoreceptor
[NASA-CASE-GSC-10700] c23 N71-30027
- Noise elimination in coherent imaging system by axial rotation of optical lens for spectral distribution of degrading affects
[NASA-CASE-GSC-11133-1] c23 N72-11568
- Photographic film restoration system using Fourier transformation lenses and spatial filter
[NASA-CASE-MSC-12448-1] c14 N72-20394
- Plural beam antenna with parabolic reflectors
[NASA-CASE-GSC-11013-1] c09 N73-19234
- Spatial filter for Q-switched lasers
[NASA-CASE-LEW-12164-1] c36 N77-32478

LENTICULAR BODIES

- Lenticular vehicle with foldable aerodynamic control flaps and reaction jets for operation above and within earth's atmosphere
[NASA-CASE-XGS-00260] c31 N70-37924

LEVEL (HORIZONTAL)

- Hot-wire liquid level detector for cryogenic propellants
[NASA-CASE-XLE-00454] c23 N71-17802

LEVEL (QUANTITY)

- Gauge for measuring quantity of liquid in spherical tank in reduced gravity
[NASA-CASE-XMS-06236] c14 N71-21007
- Conversion of positive dc voltage to positive dc voltage of lower amplitude
[NASA-CASE-XMF-14301] c09 N71-23188

LEVELING

- Development of adjustable attitude guide block for setting pins perpendicular to irregular convex work surface
[NASA-CASE-XLA-07911] c15 N71-15571
- Electrical switching device comprising conductive liquid confined within square loop of deformable nonconductive tubing also used for leveling
[NASA-CASE-NPO-10037] c09 N71-19610
- Adjustable support device with jacket screw for altering distance between base and supported member
[NASA-CASE-NPO-10721] c15 N72-27484
- Automatically operable self-leveling load table
[NASA-CASE-NFS-22039-1] c09 N75-12968
- Rotary leveling base platform
[NASA-CASE-ARC-10981-1] c35 N77-10498

LIFE (DURABILITY)

- Hollow rolling element bearings
[NASA-CASE-LEW-11087-3] c37 N74-21064

LIFE DETECTORS

- Use of enzyme hexokinase and glucose to reduce inherent light levels of ATP in luciferase compositions
[NASA-CASE-XGS-05533] c04 N69-27487
- Describing method for lyophilization of luciferase containing mixtures for use in life detection reactions
[NASA-CASE-XGS-05532] c06 N71-17705

LIFE RAFTS

- Design of inflatable life raft for aircrafts and boats
[NASA-CASE-XMS-00863] c05 N7C-34857
- Inflatable stabilizing system for use on life raft to reduce rocking and preclude capsizing
[NASA-CASE-MSC-12393-1] c02 N73-26006
- Modification of one man life raft
[NASA-CASE-LAR-10241-1] c54 N74-14845

LIFE SUPPORT SYSTEMS

- Shock absorbing couch for body support under high acceleration or deceleration forces
[NASA-CASE-XMS-01240] c05 N70-35152
- Portable environmental control and life support system for astronaut in and out of spacecraft
[NASA-CASE-XMS-09632-1] c05 N71-11203
- Design and development of flexible tunnel for use by spacecrews in performing extravehicular activities
[NASA-CASE-MSC-12243-1] c05 N71-24728

- Development of improved convolute section for pressurized suits to provide high degree of mobility in response to minimum of applied torque
[NASA-CASE-XMS-09637-1] c05 N71-24730
- Development and characteristics of inflatable structure to provide escape from orbit for spacecrews under emergency conditions
[NASA-CASE-XMS-06162] c31 N71-28851
- Chlorine generator for purifying water in life support systems of manned spacecraft
[NASA-CASE-XIA-08913] c14 N71-28933
- Open loop life support subsystem using breathing bag as reservoir for EVA
[NASA-CASE-MSC-12411-1] c05 N72-20096
- Device for removing air from water for use in life support systems in manned space flight
[NASA-CASE-XLA-8914] c15 N73-12492
- Intra- and extravehicular life support space suite for Apollo astronauts
[NASA-CASE-MSC-12609-1] c05 N73-32012
- Catalyst cartridge for carbon dioxide reduction unit
[NASA-CASE-LAR-10551-1] c25 N74-12813
- An improved cooling system for removing metabolic heat from an hermetically sealed spacesuit
[NASA-CASE-ARC-11059-1] c54 N77-14743
- Helmet feedport
[NASA-CASE-XMS-09653] c54 N78-17680

LIFT DEVICES

- Device for handling heavy loads by distributing forces
[NASA-CASE-XNP-04969] c11 N69-27466
- Techniques for recovery of multistage rocket vehicles by providing lifting surfaces on individual sections
[NASA-CASE-XMF-00389] c31 N70-34176
- Direct lift control system having flaps with slots adjacent to their leading edge and particularly adapted for lightweight aircraft
[NASA-CASE-LAR-10249-1] c02 N71-26110
- Development of auxiliary lifting system to provide ferry capability for entry vehicles
[NASA-CASE-LAR-10574-1] c11 N73-13257
- High lift aircraft --- with improved stability, control, performance, and noise characteristics
[NASA-CASE-LAR-11252-1] c05 N75-25914
- Device for installing rocket engines
[NASA-CASE-MPS-19220-1] c20 N76-22296
- Vortex-lift roll-control device
[NASA-CASE-LAR-11868-2] c08 N77-31176

LIFT DRAG RATIO

- Design of ring wing vehicle of high drag-to-weight ratio to withstand reentry stress into low density atmosphere
[NASA-CASE-XLA-04901] c31 N71-24315

LIFTING BODIES

- Techniques for recovery of multistage rocket vehicles by providing lifting surfaces on individual sections
[NASA-CASE-XMF-00389] c31 N70-34176
- Graphic illustration of lifting body design
[NASA-CASE-FRC-10063] c01 N71-12217
- Static force balancing system attached to lifting body
[NASA-CASE-LAR-10348-1] c11 N73-12264

LIFTING REENTRY VEHICLES

- Lenticular vehicle with foldable aerodynamic control flaps and reaction jets for operation above and within earth's atmosphere
[NASA-CASE-XGS-00260] c31 N70-37924
- Variable geometry manned orbital vehicle having high aerodynamic efficiency over wide speed range and incorporating auxiliary pivotal wings
[NASA-CASE-XLA-03691] c31 N71-15674
- Designing spacecraft for flight into space, atmospheric reentry, and landing at selected sites
[NASA-CASE-XAC-02058] c02 N71-16087

LIGHT (VISIBLE RADIATION)

- Light baffle with oblate hemispheroid surface and shading flange
[NASA-CASE-NPO-10337] c14 N71-15604
- Maksutov spectrograph for low light level research
[NASA-CASE-XLA-10402] c14 N71-29041
- Device for detection of combustion light preceding gaseous explosions
[NASA-CASE-LAR-10739-1] c14 N73-16484

LIGHT AIRCRAFT

Direct lift control system having flaps with slots adjacent to their leading edge and particularly adapted for lightweight aircraft
[NASA-CASE-LAR-10249-1] c02 N71-26110

LIGHT BEAMS

Overlapping beams of neodymium laser for detecting picosecond light pulses
[NASA-CASE-ERC-10227] c14 N70-12626
Cylindrical reflector for resolving wide angle light beam from telescope into narrow beam for spectroscopic analysis
[NASA-CASE-XGS-08269] c23 N71-26206
Development and characteristics of optical communications system based on modulation of light beams
[NASA-CASE-XLA-01090] c16 N71-28963
Multiple pattern holographic information storage and readout system
[NASA-CASE-ERC-10151] c16 N71-29131

LIGHT GAS GUNS

Implosion driven, light gas, hypervelocity gun
[NASA-CASE-XAC-05902] c11 N71-18578

LIGHT MODULATION

Optical retrodirective modulator with focus spoiling reflector driven by modulation signal
[NASA-CASE-GSC-10062] c14 N71-15605
Modulating and controlling intensity of light beam from high temperature source by servocontrolled rotating cylinders
[NASA-CASE-XMS-04300] c09 N71-19479
Method and apparatus for optically modulating light or microwave beam
[NASA-CASE-GSC-10216-1] c23 N71-26722
Development and characteristics of optical communications system based on modulation of light beams
[NASA-CASE-XLA-01090] c16 N71-28963
Lamp modulator for generating visual indication of presence and magnitude of signal
[NASA-CASE-KSC-10565] c09 N72-25250
Polarization compensator for optical communications
[NASA-CASE-GSC-11782-1] c74 N76-30053

LIGHT SCATTERING

Forward-scatter polarimeter for determining the gaseous depolarization factor in the presence of polluting polydispersed particles
[NASA-CASE-NPO-13756-1] c35 N76-14434
The 2 deg/90 deg laboratory scattering photometer --- particulate refractivity in hydrosols
[NASA-CASE-GSC-12088-1] c74 N78-13874

LIGHT SCATTERING METERS

System for the measurement of ultra-low stray light levels --- light shields and baffles
[NASA-CASE-MFS-23513-1] c74 N77-14842

LIGHT SOURCES

Light radiation direction indicator with baffle of two parallel grids
[NASA-CASE-XNP-03930] c14 N69-24331
High intensity heat and light unit containing quartz lamp elements protectively positioned to withstand severe environmental stress
[NASA-CASE-XLA-00141] c09 N70-33312
Photosensitive light source device for detecting unmanned spacecraft deviation from reference attitude
[NASA-CASE-XNP-00438] c21 N70-35089
Electro-optical detector for determining position of light source
[NASA-CASE-XNP-01059] c23 N71-21821
Optical system for selecting particular wavelength light beams from multiple wavelength light source
[NASA-CASE-ERC-10248] c14 N72-17323
Electro-optical stabilization of calibrated light source
[NASA-CASE-MSC-12293-1] c14 N72-27411
Development of temperature compensated light source with components and circuitry for maintaining luminous intensity independent of temperature variations
[NASA-CASE-ARC-10467-1] c09 N73-14214
Interferometer prism and control system for precisely determining direction to remote light source
[NASA-CASE-ARC-10278-1] c14 N73-25463
Attitude sensor
[NASA-CASE-LAR-10586-1] c19 N74-15089

Very high intensity light source using a cathode ray tube --- electron beams
[NASA-CASE-XNP-01296] c33 N75-27250
Electric arc light source having undercut recessed anode
[NASA-CASE-ARC-10266-1] c33 N75-29318
Uniform variable light source
[NASA-CASE-NFO-11429-1] c74 N77-21941

LIGHT TRANSMISSION

Hybrid holographic system using reference, transmitted, and reflected beams simultaneously
[NASA-CASE-MFS-20074] c16 N71-15565
Optical characteristics measuring apparatus
[NASA-CASE-XNP-08840] c23 N71-16365
Optical monitor panel consisting of translucent screen with test or meter information projected onto it from rear for application in control rooms of missile launching and tracking stations
[NASA-CASE-XKS-03509] c14 N71-23175
Solar cell panel with light transmitting cover plate
[NASA-CASE-NFO-10747] c03 N72-22042
Method and system for transmitting and distributing optical frequency radiation
[NASA-CASE-HQN-10541-3] c23 N72-23695
Thin absorbing metallic film for increased visible light transmission
[NASA-CASE-LAR-10836-1] c26 N72-27784
Transmitting and reflecting diffuser --- for ultraviolet light
[NASA-CASE-LAR-10385-2] c70 N74-13436
Optical instrument employing reticle having preselected visual response pattern formed thereon
[NASA-CASE-ARC-10976-1] c74 N77-22950
Transmitting and reflecting diffuser --- using ultraviolet grade fused silica coatings
[NASA-CASE-LAR-10385-3] c74 N78-15879

LIGHTING EQUIPMENT

Sealed fluorescent tube light unit capable of connection with other units to form string of work lights
[NASA-CASE-XKS-05932] c09 N71-26787
Pressurized inert gas feed for lighting system
[NASA-CASE-KSC-10644] c09 N72-27227

LIGHTNING

Apparatus for determining distance to lightning strokes from single station by magnetic and electric field sensing antennas
[NASA-CASE-KSC-10698] c07 N73-20175
System for locating lightning strokes by coordination of directional antenna signals
[NASA-CASE-KSC-10729-1] c09 N73-32110
Monitoring and recording lightning strokes in predetermined area
[NASA-CASE-KSC-10728-1] c14 N73-32319
Lightning current measuring systems
[NASA-CASE-KSC-10807-1] c33 N75-26246
Remote lightning monitor system
[NASA-CASE-KSC-11031-1] c33 N77-21319
Lightning current waveform measuring system
[NASA-CASE-KSC-11018-1] c33 N77-21320
Lightning current detector
[NASA-CASE-KSC-11057-1] c35 N78-10435

LIMITER CIRCUITS

Variable duration pulse integrator design for integrating pulse duration modulated pulses with elimination of ripple content
[NASA-CASE-XLA-01219] c10 N71-23084
Circuits for amplitude limiting of random noise inputs
[NASA-CASE-NPO-10169] c10 N71-24844
Velocity limiting safety system for motor driven research vehicle
[NASA-CASE-XLA-07473] c15 N71-24895
Low level signal limiter
[NASA-CASE-XLE-04791] c32 N74-22096
Inrush current limiter
[NASA-CASE-GSC-11789-1] c33 N77-14333

LINEAR ACCELERATORS

Linear accelerator frequency control system
[NASA-CASE-XGS-05441] c10 N71-22962

LINEAR RECEIVERS

Antenna array at focal plane of reflector with coupling network for beam switching
[NASA-CASE-GSC-10220-1] c07 N71-27233

LINEAR SYSTEMS

Linear three-tap feedback shift register

- [NASA-CASE-NFO-10351] c08 N71-12503
Family of m-ary linear feedback shift register
with binary logic
[NASA-CASE-NFO-11868] c10 N73-20254
- LINEARITY**
Semilinear bearing comprising two rows of roller
bearings separated by spherical bearings and
permitting rotational and translational movement
[NASA-CASE-XLA-02809] c15 N71-22982
Mechanical actuator wherein linear motion
changes to rotational motion
[NASA-CASE-XGS-04548] c15 N71-24045
- LINKAGES**
Development of collapsible nozzle extension for
rocket engines
[NASA-CASE-MFS-11497] c28 N71-16224
Design and construction of mechanical probe for
determining if object is properly secured
[NASA-CASE-MFS-20760] c14 N72-33377
- LIQUEFACTION**
Ophthalmic liquifaction pump
[NASA-CASE-LEW-12051-1] c52 N75-33640
- LIQUID BEARINGS**
Fatigue life of hybrid antifriction bearings at
ultrahigh speeds
[NASA-CASE-LEW-11152-1] c15 N73-32359
- LIQUID COOLING**
Water cooled contactors for holding rotating
carbon arc anode
[NASA-CASE-XMS-03700] c15 N69-24266
External device for liquid spray cooling of gas
turbine blades
[NASA-CASE-XLE-00037] c28 N70-33372
Water cooled solenoid capable of producing
magnetic field intensities up to 100 kilogauss
[NASA-CASE-XNP-01951] c09 N70-41929
Laminar flow of liquid coolants in rocket engines
[NASA-CASE-NPO-10122] c12 N71-17631
Space suit body heat exchanger design composed
of thermal conductance yarn and liquid coolant
loops
[NASA-CASE-XMS-09571] c05 N71-19439
Electric power system with circulatory liquid
coolant cooling system
[NASA-CASE-MFS-14114-2] c09 N71-24807
Electric power system with thermionic diodes and
circulatory liquid metal coolant lines
[NASA-CASE-MFS-14114] c33 N71-27862
Apparatus for liquid spray cooling of turbine
blades
[NASA-CASE-XLE-00027] c33 N71-29152
Automatic control device for regulating inlet
water temperature of liquid cooled spacesuit
[NASA-CASE-MSC-13917-1] c05 N72-15098
Automatic temperature control for liquid cooled
space suit
[NASA-CASE-ARC-10599-1] c05 N73-26071
Heat exchanger system and method
[NASA-CASE-LAR-10799-2] c34 N76-17317
Liquid cooled brassiere and method of diagnosing
malignant tumors therewith
[NASA-CASE-ARC-11007-1] c52 N77-14736
Closed loop spray cooling apparatus --- for
particle accelerator targets
[NASA-CASE-LEW-11981-1] c31 N78-17237
- LIQUID CRYSTALS**
Development of combined velocimeter and
accelerometer based on color changes in liquid
crystalline material subjected to shear stresses
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[NASA-CASE-XMS-01906] c31 N70-41373

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[NASA-CASE-XAC-01158] c15 N71-23051
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[NASA-CASE-XLA-8914] c15 N73-12492

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[NASA-CASE-XLA-00149] c31 N70-37938
Delta winged, manned reentry vehicle capable of horizontal glide landing at low speeds
[NASA-CASE-XLA-00241] c31 N70-37986
Parachute system for lowering manned spacecraft from post-reentry to ocean landing
[NASA-CASE-XLA-00195] c02 N70-38009
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[NASA-CASE-XLA-01332] c31 N71-15664
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[NASA-CASE-XNP-02595] c31 N71-21881
Chlorine generator for purifying water in life support systems of manned spacecraft
[NASA-CASE-XLA-08913] c14 N71-28933
Collapsible couch system for manned space vehicles
[NASA-CASE-MSC-13140] c05 N72-11085
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[NASA-CASE-LEW-11101-1] c31 N73-32750

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[NASA-CASE-XAC-00030] c14 N70-34820
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[NASA-CASE-LAB-10000] c14 N73-30394

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[NASA-CASE-XAC-03777] c10 N71-15909
Manual control mechanism for adjusting control rod to null position
[NASA-CASE-XLA-01808] c15 N71-20740
Manually activated heat pump for mechanically converting human operator output into heat energy
[NASA-CASE-MFC-10677] c05 N72-11084
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[NASA-CASE-MFO-11497] c08 N73-25206
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[NASA-CASE-MSC-12394-1] c08 N74-10942
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[NASA-CASE-ARC-10806-1] c35 N75-29381

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[NASA-CASE-ERC-10072] c09 N70-11148
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[NASA-CASE-XMS-02532] c15 N70-41808
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[NASA-CASE-XLE-00953] c15 N71-15966
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[NASA-CASE-MFS-20410] c15 N71-19214
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[NASA-CASE-MFO-10123] c15 N71-24835
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[NASA-CASE-XLA-04126] c28 N71-26779
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[NASA-CASE-ARC-10900-1] c35 N77-24454

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[NASA-CASE-XLE-00301] c14 N70-36808
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[NASA-CASE-XLA-01401] c15 N71-21179
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[NASA-CASE-MFO-11001] c07 N72-21118

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[NASA-CASE-MSC-14472-1] c43 N77-10584

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MASKING

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[NASA-CASE-NPO-11437] c16 N72-28521
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[NASA-CASE-NPO-13490-1] c36 N76-31512
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[NASA-CASE-NPO-13839-1] c31 N77-15219
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[NASA-CASE-GSC-12334-1] c36 N78-15474

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[NASA-CASE-XMS-03371] c05 N7C-42000
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[NASA-CASE-LAR-10083-1] c15 N71-27006
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[NASA-CASE-MSC-14653-1] c35 N77-19385

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[NASA-CASE-XAC-00073] c14 N70-34813
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in calibrating pressure gages
[NASA-CASE-XMF-04134] c14 N71-23755

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distribution of liquid rocket propellant
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[NASA-CASE-NPO-10185] c10 N71-26339

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changes in density, velocity, and pressure,
thereby maintaining constant mass flow rate of
propellant into rocket combustion chamber
[NASA-CASE-XIE-03157] c28 N71-24736
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[NASA-CASE-MPS-20485] c14 N72-11365
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and high Reynolds number air at hypersonic
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[NASA-CASE-LAR-10578-1] c12 N73-25262

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with argon gas filter between light source and
monochromator
[NASA-CASE-LAR-10180-1] c06 N71-13461
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mass spectrometer to measure or analyze gases
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[NASA-CASE-XNP-01056] c14 N71-23041
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electrode target for analyzing traces of fluids
[NASA-CASE-ERC-10014] c14 N71-28863
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spectrometer for detecting leak rate of
encapsulated semiconductor devices
[NASA-CASE-ERC-10150] c14 N71-28992
High speed scanner for measuring mass of
preselected gases at high sampling rate
[NASA-CASE-LAR-10766-1] c14 N72-21432
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containers including vacuum chamber, mass
spectrometer, and gas chromatography
[NASA-CASE-GSC-10903-1] c14 N73-12444
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spectrum for ion separation and identification
[NASA-CASE-XNP-04231] c14 N73-32325
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[NASA-CASE-LAR-11428-1] c35 N74-34857
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magnetic sector and an ion-type vacuum pump
[NASA-CASE-NPO-13663-1] c35 N77-14406
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[NASA-CASE-NPO-14078-1] c76 N78-13917

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with group of reentrant wall portions
projecting into internal gas-pervious
container filled with gas and vapor sorbent
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[NASA-CASE-XMF-01887] c15 N71-10617
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[NASA-CASE-XMS-01905] c12 N71-21089
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[NASA-CASE-NPO-11118] c03 N72-25021
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[NASA-CASE-LAR-10961-1] c15 N73-12496
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[NASA-CASE-NFO-11213] c15 N73-20514
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- Monitoring and recording lightning strokes in predetermined area
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- Analytical photoionization mass spectrometer with argon gas filter between light source and monochromator
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- Color television system for allowing monochrome television camera to produce color pictures
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- Monopole antenna system for maximum omnidirectional efficiency for use on satellites
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[NASA-CASE-GSC-12194-1] c20 N77-28219

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[NASA-CASE-XGS-05582] c07 N69-27460

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[NASA-CASE-IXP-01735] c07 N71-22750

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[NASA-CASE-GSC-11924-1] c33 N76-27472

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Polarization diversity monopulse tracking receiver design without radio frequency switches
[NASA-CASE-XGS-03501] c09 N71-20864

Monopulse tracking system with antenna array of three radiators for deriving azimuth and elevation indications
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[NASA-CASE-GSC-11139] c09 N71-27016

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[NASA-CASE-XMS-01625] c15 N71-23022

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[NASA-CASE-LEW-10965-1] c15 N72-25452
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[NASA-CASE-XLE-00283] c17 N70-36616

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[NASA-CASE-LEW-12906-1] c26 N77-32279

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[NASA-CASE-LEW-12270-1] c26 N77-32280

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[NASA-CASE-GSC-11434-1] c34 N74-27859

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[NASA-CASE-LEW-12159-1] c44 N78-19599

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[NASA-CASE-IGS-03505] c03 N71-10608

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[NASA-CASE-ARC-10325] c06 N72-25147

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[NASA-CASE-INP-09830] c14 N71-26266

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[NASA-CASE-GSC-11133-1] c23 N72-11568

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[NASA-CASE-LAR-11087-1] c02 N73-26008

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[NASA-CASE-LAR-10941-2] c15 N73-32371

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[NASA-CASE-LEW-11286-1] c07 N74-27490

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[NASA-CASE-LAR-10642-1] c07 N74-31270

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[NASA-CASE-LAR-11141-1] c07 N74-32418

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[NASA-CASE-GSC-12082-2] c52 N77-27694
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- Method for shaping regeneratively cooled rocket motor casing having minimum thickness at each channel cross section
[NASA-CASE-XLE-00409] c28 N71-15658
- Regeneratively cooled rocket motor casing with tapered channels to insure minimum thicknesses at each channel cross section for necessary strength requirements
[NASA-CASE-XLE-05689] c28 N71-15659
- OSCILLATION DAMPERS**
- Design and operation of viscous pendulum damper
[NASA-CASE-XLA-02079] c12 N71-16894
- Stabilization system for gravity-oriented satellites using single damper rod
[NASA-CASE-XAC-01591] c31 N71-17729
- Suspended mass oscillation damper based on impact energy absorption for damping wind induced oscillations of tall stacks, antennas, and umbilical towers
[NASA-CASE-LAR-10193-1] c15 N71-27146
- Damper system for alleviating air flow shock loads on wind tunnel models
[NASA-CASE-XLA-09480] c11 N71-33612
- OSCILLATIONS**
- Development of electrical circuit for suppressing oscillations across inductor operating in resonant mode
[NASA-CASE-ERC-10403-1] c10 N73-26228
- OSCILLATORS**
- Oscillatory electromagnetic mirror drive system for horizon scanners
[NASA-CASE-XLA-03724] c14 N69-27461
- Frequency control network for current feedback oscillators converting dc voltage to ac or higher dc voltages
[NASA-CASE-GSC-10041-1] c10 N71-19418
- Development and characteristics of oscillating static inverter
[NASA-CASE-XGS-05289] c09 N71-19470
- Voltage controlled oscillators and pulse amplitude modulation for signal ratio system
[NASA-CASE-XMP-04367] c09 N71-23545
- Development and characteristics of fluid oscillator analog to digital converter with variable frequency controlled by signal passing through conditioning circuit
[NASA-CASE-LEW-10345-1] c10 N71-25899
- Wideband voltage controlled oscillator with high phase stability
[NASA-CASE-XLA-03893] c10 N71-27271
- Variable frequency subcarrier oscillator with temperature compensation
[NASA-CASE-XNP-03916] c09 N71-28810
- Inverter oscillator with voltage feedback
[NASA-CASE-NPO-10760] c09 N72-25254
- Controlled oscillator system with a time dependent output frequency
[NASA-CASE-NPO-11962-1] c33 N74-10194
- Ultra-stable oscillator with complementary transistors
[NASA-CASE-GSC-11513-1] c33 N74-20862
- LC-oscillator with automatic stabilized amplitude via bias current control --- power supply circuit for transducers
[NASA-CASE-MPS-21698-1] c33 N74-26732
- Frequency modulated oscillator
[NASA-CASE-MPS-23181-1] c33 N77-17351
- Distributed feedback acoustic surface wave oscillator
[NASA-CASE-NPO-13673-1] c71 N77-26919
- OSCILLOSCOPES**
- Sign wave generation simulator for variable amplitude, frequency, damping, and phase pulses for oscilloscope display
[NASA-CASE-NPO-10251] c10 N71-27365
- Scan oscilloscope for mapping surface sensitivity of photomultiplier tube
[NASA-CASE-LAR-10320-1] c09 N72-23172
- Mechanical exposure interlock device for preventing film overexposure in oscilloscope camera
[NASA-CASE-LAR-10319-1] c14 N73-32322
- X-Y alphanumeric character generator for oscilloscopes
[NASA-CASE-GSC-11582-1] c33 N75-19517
- OUTER PLANETS EXPLORERS**
- Spectrometer integrated with a facsimile camera
[NASA-CASE-LAR-11207-1] c35 N75-19613
- OUTGASSING**
- Optical characteristics measuring apparatus
[NASA-CASE-XNP-08840] c23 N71-16365
- Helium outgassing process for fused glass coating on ion accelerator grid
[NASA-CASE-LEW-10278-1] c15 N71-28582
- Fluid polydimethylsiloxane resin with low outgassing properties in cured state
[NASA-CASE-GSC-11358-1] c06 N73-26100
- OUTPUT**
- Nonlinear nonsingular feedback shift registers
[NASA-CASE-NPO-13451-1] c33 N76-14373
- Ovens**
- Oven for heat treating heat shields
[NASA-CASE-XMS-04318] c15 N69-27871
- OVERVOLTAGE**
- Spark gap type protective circuit for fast sensing and removal of overvoltage conditions

[NASA-CASE-XAC-08981] c09 N69-39897
Sensing circuit for instantaneous reaction to power overloads
[NASA-CASE-GSC-10667-1] c10 N71-33129
Overvoltage protection network
[NASA-CASE-ABC-10197-1] c33 N74-17929
Overload protection system for power inverter
[NASA-CASE-NFO-13872-1] c33 N78-10377

OXAZOLE
Preparation of heterocyclic block copolymer from perfluoroalkylene oxide alpha, omega-diamidoximes
[NASA-CASE-ABC-11060-1] c27 N78-10292

OXIDATION
Silicide coating process and composition for protection of refractory metals from oxidation
[NASA-CASE-XLE-10910] c18 N71-29040
Automated analysis of oxidative metabolites
[NASA-CASE-ABC-10469-1] c25 N75-12086
Hydrogen rich gas generator
[NASA-CASE-NFO-13464-2] c44 N76-29704
Process of forming catalytic surfaces for wet oxidation reactions
[NASA-CASE-MSC-14831-1] c25 N78-10225

OXIDATION RESISTANCE
Nickel base alloy with resistance to oxidation at high temperatures and superior stress-rupture properties
[NASA-CASE-XLE-02082] c17 N71-16026
Method of protecting the surface of a substrate --- by applying aluminide coating
[NASA-CASE-LEW-11696-1] c37 N75-13261
Duplex aluminized coatings
[NASA-CASE-LEW-11696-2] c26 N75-19408
High temperature oxidation resistant cermet compositions
[NASA-CASE-NFO-13666-1] c27 N77-13217

OXIDE FILMS
Stainless steel panel for selective absorption of solar energy and the method of producing said panel
[NASA-CASE-MFS-23518-2] c44 N77-31611

OXIDES
Utilization of lithium p-lithiphenoxide to prepare star polymers
[NASA-CASE-NFO-10998-1] c06 N73-32029

OXIDIZERS
Electrolytically regenerative hydrogen-oxygen fuel cells
[NASA-CASE-XLE-04526] c03 N71-11052
Fuel and oxidizer injection head for thrust chamber of reaction engine
[NASA-CASE-NFO-10046] c28 N72-17843

OXIMETRY
Ear oximeter for monitoring blood oxygenation and pressure, pulse rate, and pressure pulse curve, using dc and ac amplifiers
[NASA-CASE-XAC-05422] c04 N71-23185

OXYGEN
Analytical test apparatus and method for determining oxygen content in alkali liquid metal
[NASA-CASE-XLE-01997] c06 N71-23527
Heated tungsten filter for removing oxygen impurities from cesium
[NASA-CASE-XNP-04262-2] c17 N71-26773
Method for detecting oxygen in gas by thermoluminescence
[NASA-CASE-LAR-10668-1] c06 N73-16106
Method for obtaining oxygen from lunar or similar soil
[NASA-CASE-MSC-12408-1] c46 N74-13011
Nonflammable coating compositions --- for use in high oxygen environments
[NASA-CASE-MFS-20486-2] c27 N74-17283

OXYGEN CONSUMPTION
Respiration analyzing method and apparatus for determining subjects oxygen consumption in aerospace environments
[NASA-CASE-XPR-08403] c05 N71-11202

OXYGEN FLUORIDES
Utilization of oxygen difluoride for syntheses of fluoropolymers
[NASA-CASE-NFO-12061-1] c27 N76-16228

OXYGEN METABOLISM
Metabolic analyzer --- for measuring metabolic rate and breathing dynamics of human beings
[NASA-CASE-MFS-21415-1] c52 N74-20728

OXYGEN PLASMA

Oxygen post-treatment of plastic surfaces coated with plasma polymerized silicon-containing monomers
[NASA-CASE-ABC-10915-2] c27 N77-20256

OXYGEN REGULATORS

Lead-oxygen dc power supply system having a closed loop oxygen and water system
[NASA-CASE-MFS-23059-1] c44 N76-27664

OXYGEN SUPPLY EQUIPMENT

Self-contained breathing apparatus
[NASA-CASE-MSC-14733-1] c54 N76-24900

OZONE

Thermoluminescent aerosol analysis
[NASA-CASE-LAR-12046-1] c25 N78-15210

P**P-N JUNCTIONS**

Lithium drifted silicon radiation detector with gold rectifying contacts
[NASA-CASE-XLE-10529] c14 N69-23191
Semiconductor p-n junction on needle apex to provide stress and strain sensor
[NASA-CASE-XLA-04980] c09 N69-27422
Improving radiation resistance of silicon semiconductor junctions by doping with lithium
[NASA-CASE-IGS-07801] c09 N71-12513
Silicon radiation detecting probe design for in vivo biomedical use
[NASA-CASE-XMS-01177] c05 N71-19440
Electrode connection for n-on-p silicon solar cell
[NASA-CASE-XLE-04787] c03 N71-20492
Water content in vapor deposition atmosphere for forming n-type and p-type junctions of zinc doped gallium arsenide
[NASA-CASE-XNP-01961] c26 N71-29156
Method for making semiconductor p-n junction stress and strain sensor
[NASA-CASE-XLA-04980-2] c14 N72-28438
Resin for protecting p-n semiconductor junction surface
[NASA-CASE-ERC-10339-1] c18 N73-30532

P-TYPE SEMICONDUCTORS

Addition of group 3 elements to silicon semiconductor material for increased resistance to radiation damage in solar cells
[NASA-CASE-XLE-02798] c26 N71-23654
Integrated P-channel MOS gyrator
[NASA-CASE-MFS-22343-1] c33 N74-34638

PACKAGES

Impact testing machine for imparting large impact forces on high velocity packages
[NASA-CASE-XNP-04817] c14 N71-23225
One hand backpack harness
[NASA-CASE-LAR-10102-1] c05 N72-23085

PACKAGING

Characteristics of device for folding thin flexible sheets into compact configuration
[NASA-CASE-XLA-00137] c15 N70-33180
Method of compactly packaging centrifugally expandable lightweight flexible reflector satellite
[NASA-CASE-XLA-00138] c31 N70-37981
Development and characteristics of system for skin packaging articles using thermoplastic film heating and vacuum operated equipment
[NASA-CASE-MFS-20855] c15 N73-27405

PACKING DENSITY

Micropacked column for rapid chromatographic analysis using low gas flow rates
[NASA-CASE-XNP-04816] c06 N69-39936

PACKINGS (SEALS)

Fluid seal for rotating shafts
[NASA-CASE-LEW-11676-1] c37 N76-22541

PAD

Lubricated journal bearing
[NASA-CASE-LEW-11076-3] c37 N75-30562

PAINTS

Nitroaniline sulfate, intumescent paints
[NASA-CASE-ABC-10099-1] c18 N71-15469
Composition and production method of alkali metal silicate paint with ultraviolet reflection properties
[NASA-CASE-IGS-04799] c18 N71-24183
White paint production by heating impure aluminum silicate clay having low solar absorptance
[NASA-CASE-XNP-02139] c18 N71-24184

PALLADIUM COMPOUNDS

Preventing pressure buildup in electrochemical cells by reacting palladium oxide with evolved hydrogen
[NASA-CASE-XGS-01419] c03 N70-41864
Separation of dissolved hydrogen from water and coating with palladium black
[NASA-CASE-MSC-13335-1] c06 N72-31140

PANELS

Nut and bolt fastener permitting all-directional movement of skin sections with respect to supporting structure
[NASA-CASE-XLA-01807] c15 N71-10799
Multilayer insulation panels for cryogenic liquid containers
[NASA-CASE-MFS-14023] c33 N71-25351
Method and apparatus for fabricating solar cell panels
[NASA-CASE-XNP-03413] c03 N71-26726
Method for making pressurized meteoroid penetration detector panels
[NASA-CASE-XLA-08916] c15 N71-29018
Honeycomb panels of minimal surface, periodic tubule layers
[NASA-CASE-ERC-10364] c18 N72-25540
Fabrication of light weight panel structure using pairs of elongate hollow ribs of semicircular configuration
[NASA-CASE-LAR-11052-1] c32 N73-13929
Pressurized panel meteoroid detector
[NASA-CASE-XLA-08916-2] c14 N73-28487
Ultrasonic scanner for radial and flat panels
[NASA-CASE-MFS-20335-1] c35 N74-10415
Folding structure fabricated of rigid panels
[NASA-CASE-XHQ-02146] c18 N75-27040
Varying density composite structure
[NASA-CASE-LAR-11181-1] c39 N75-31479
Method of making a composite sandwich lattice structure
[NASA-CASE-LAR-11898-2] c24 N78-17149
Selective coating for solar panels --- using black chrome and black nickel
[NASA-CASE-LEW-12159-1] c44 N78-19599

PAPERS

Process for purification of waste water produced by a Kraft process pulp and paper mill
[NASA-CASE-NPO-13847-2] c85 N77-17949
Guide for a typewriter
[NASA-CASE-MFS-15218-1] c37 N77-19457

PARABOLIC ANTENNAS

Device for improving efficiency of parabolic horn antenna system for linearly polarized signals
[NASA-CASE-XNP-00611] c09 N70-35219
Drive system for parabolic tracking antenna with reversible motion and minimal backlash
[NASA-CASE-NFO-10173] c15 N71-24696
Switchable beamwidth monopulse method and system
[NASA-CASE-GSC-11924-1] c33 N76-27472

PARABOLIC REFLECTORS

Device for improving efficiency of parabolic reflector horn for linearly or circularly polarized waves
[NASA-CASE-XNP-00540] c09 N70-35382
Foldable, double cone and parabolic reflector system for solar ray concentration
[NASA-CASE-XLA-04622] c03 N70-41580
Self erecting parabolic reflector design for use in space
[NASA-CASE-XMS-03454] c09 N71-20658
Plural beam antenna with parabolic reflectors
[NASA-CASE-GSC-11013-1] c09 N73-19234
Multimode antenna feed system for microwave and broadband communication
[NASA-CASE-GSC-11046-1] c07 N73-28013
Single frequency, two feed dish antenna having switchable beamwidth
[NASA-CASE-GSC-11968-1] c32 N76-15329
Sun tracking solar energy collector
[NASA-CASE-NPO-13921-1] c44 N77-24590

PARABOLOID MIRRORS

Optical data processing system using paraboloidal reflecting surfaces
[NASA-CASE-GSC-11296-1] c23 N73-30666
Three mirror glancing incidence system for X-ray telescope
[NASA-CASE-MFS-21372-1] c74 N74-27866

PARACHUTE DESCENT

Multiple parachute system for landing control of

Apollo type spacecraft
[NASA-CASE-XLA-00898] c02 N70-36804
Parachute system for lowering manned spacecraft from post-reentry to ocean landing
[NASA-CASE-XLA-00195] c02 N70-38009
Piston in bore cutter for severing parachute control lines and sealing cable hole to prevent water leakage into load
[NASA-CASE-XMS-04072] c15 N70-42017
Development and operating principles of gas generator for deploying recovery parachutes from space capsules during atmospheric entry
[NASA-CASE-LAR-10549-1] c31 N73-13898
PARACHUTE FABRICS
Lightweight, variable solidity knitted parachute fabric --- for aerodynamic decelerators
[NASA-CASE-LAR-10776-1] c02 N74-10034
PARACHUTES
System for controlling torque buildup in suspension of gondola connected to balloon by parachute shroud lines
[NASA-CASE-GSC-11077-1] c02 N73-13008
Deploy/release system --- model aircraft flight control
[NASA-CASE-LAR-11575-1] c02 N76-16014
PARAGLIDERS
Multiple parachute system for landing control of Apollo type spacecraft
[NASA-CASE-XLA-00898] c02 N70-36804
PARALLAX
Projection system for display of parallax and perspective
[NASA-CASE-MFS-23194-1] c35 N78-17357
PARALLEL PLATES
Describing instrument capable of measuring true shear viscosity of liquids and viscoelastic materials
[NASA-CASE-XNP-09462] c14 N71-17584
PARALLEL PROCESSING (COMPUTERS)
Digital data reformatter/deserializer
[NASA-CASE-NPO-13676-1] c60 N77-24781
PARAMETRIC AMPLIFIERS
Development of idler feedback system to reduce electronic noise problem in two parametric amplifiers
[NASA-CASE-LAR-10253-1] c09 N72-25258
Millimeter wave pumped parametric amplifier
[NASA-CASE-GSC-11617-1] c33 N74-32660
PARA-WINGS
Method for deployment of flexible wing glider from space vehicle with minimum impact and loading
[NASA-CASE-XMS-00907] c02 N70-41630
PARKING
Automated multi-level vehicle parking system
[NASA-CASE-NPO-13058-1] c37 N77-22480
PARTIAL PRESSURE
Equipment for measuring partial water vapor pressure in gas tank
[NASA-CASE-XMS-01618] c14 N71-20741
PARTICLE ACCELERATION
Selector mechanism for mechanical separation and discrimination of high velocity molecular particles
[NASA-CASE-XLE-01533] c11 N71-10777
Method and apparatus for use in forming highly collimated beam of microparticles with high charge to mass ratio and injecting beam into electrostatic accelerating tube
[NASA-CASE-XGS-06628] c24 N71-16213
PARTICLE ACCELERATOR TARGETS
Dispensing targets for ion beam particle generators
[NASA-CASE-NPO-13112-1] c73 N74-26767
Deuterium pass through target --- neutron emitting target
[NASA-CASE-LEW-11866-1] c72 N76-15860
Closed loop spray cooling apparatus
[NASA-CASE-LEW-11981-2] c34 N77-32434
Closed loop spray cooling apparatus --- for particle accelerator targets
[NASA-CASE-LEW-11981-1] c31 N78-17237
PARTICLE BEAMS
Particle beam power density detection and measurement apparatus
[NASA-CASE-XLE-00243] c14 N70-38602
Doppler shift system --- system for measuring velocities of radiating particles
[NASA-CASE-HQN-10740-1] c72 N74-19310

PARTICLE COLLISIONS

Momentum-velocity analyzer for measuring minute space particles
[NASA-CASE-XMS-04201] c14 N71-22990

PARTICLE DENSITY (CONCENTRATION)

Particle detector for measuring micrometeoroid velocity in space
[NASA-CASE-XLA-00495] c14 N70-41332

PARTICLE EMISSION

Mosaic semiconductor radiation detector and position indicator systems engineering for low energy particles
[NASA-CASE-XGS-03230] c14 N71-23401
Apparatus for detecting particle emission lower than noise level of multiplier tube
[NASA-CASE-XLA-07813] c14 N72-17328

PARTICLE ENERGY

Particle detector for indicating incidence and energy of minute space particles
[NASA-CASE-XLA-00135] c14 N70-33322
Particulate and aerosol detector
[NASA-CASE-LAR-11434-1] c35 N76-22509

PARTICLE MASS

Cosmic dust analyzer
[NASA-CASE-MSC-13802-2] c35 N76-15431
Microbalance --- for measuring particle mass
[NASA-CASE-MSC-11242] c35 N78-17358

PARTICLE MOTION

Moving particle composition analyzer
[NASA-CASE-GSC-11889-1] c35 N76-16393

PARTICLE PRODUCTION

Production of I-123
[NASA-CASE-LEW-11390-3] c25 N76-29379

PARTICLE SIZE DISTRIBUTION

Micropacked column for rapid chromatographic analysis using low gas flow rates
[NASA-CASE-XNP-04816] c06 N69-39936
Apparatus for producing hydrocarbon slurry containing small particles of magnesium for use as jet aircraft fuel
[NASA-CASE-XLE-00010] c15 N70-33382
Production of high strength refractory compounds and microconstituents into refractory metal matrix
[NASA-CASE-XLE-03940] c18 N71-26153
Frequency scanning particle size spectrometer
[NASA-CASE-NPO-13606-1] c35 N75-19627
Particle size spectrometer and refractometer
[NASA-CASE-NPO-13614-1] c35 N75-19628
Grain refinement control in TIG arc welding
[NASA-CASE-MSC-19095-1] c37 N75-19683
Forward-scatter polarimeter for determining the gaseous depolarization factor in the presence of polluting polydispersed particles
[NASA-CASE-NPO-13756-1] c35 N76-14434
Fire protection covering for small diameter missiles
[NASA-CASE-ARC-11104-1] c15 N78-13110
Apparatus for handling micron size range particulate material
[NASA-CASE-NPO-10151] c37 N78-17386

PARTICLE TRAJECTORIES

Micrometeoroid velocity and trajectory analyzer
[NASA-CASE-GSC-11892-1] c35 N76-15433

PARTICLES

Development of device for separating, collecting, and viewing soil particles
[NASA-CASE-XNP-09770] c15 N71-20440
Development of apparatus for producing metal powder particles of controlled size
[NASA-CASE-XLE-06461-2] c17 N72-28535
Particle parameter analyzing system --- x-y plotter circuits and display
[NASA-CASE-XLE-06094] c33 N78-17293

PARTICULATE SAMPLING

Design and development of device to prevent clogging in hoppers containing particulate materials
[NASA-CASE-LAR-10961-1] c15 N73-12496
Development and operation of apparatus for sampling particulates in gases in upper atmosphere
[NASA-CASE-HQN-10037-1] c14 N73-27376
Fine particulate capture device
[NASA-CASE-LEW-11583-1] c37 N74-13199
Electrophoretic sample insertion --- device for uniformly distributing samples in flow path
[NASA-CASE-HFS-21395-1] c25 N74-26948

Sampler of gas borne particles
[NASA-CASE-NPO-13396-1] c35 N76-18401

PASSAGEWAYS

Space expandable tether device for use as passageway between two docked spacecraft
[NASA-CASE-XMS-10993] c15 N71-28936

PASSIVE SATELLITES

Erectable, inflatable, radio signal reflecting passive communication satellite
[NASA-CASE-XLA-00210] c30 N70-40309
Apparatus for measuring backscatter and transmission characteristics of sample segment of large spherical passive satellites
[NASA-CASE-XGS-02608] c07 N70-41678
Forming inflatable panels erectable in space for passive communication satellite
[NASA-CASE-XLA-03497] c15 N71-23052

PATENT APPLICATIONS

Auxiliary power system for activity cooled aircraft
[NASA-CASE-LAR-11626-1] c34 N77-12332

PATENTS

Solar-powered pump
[NASA-CASE-NPO-13567-1] c44 N76-29701

PATIENTS

Stretcher with rigid head and neck support with capability of supporting immobilized person in vertical position for removal from vehicle hatch to exterior also useful as splint stretcher
[NASA-CASE-XMF-06589] c05 N71-23159

PATTERN RECOGNITION

Roughness detector for recording surface pattern of irregularities
[NASA-CASE-XLA-00203] c14 N70-34161
Auditory display for the blind
[NASA-CASE-HQN-10832-1] c71 N74-21014

PAYLOADS

Plastic foam generator for space vehicle instrument payload package flotation in water landing
[NASA-CASE-XLA-00838] c03 N70-36778
Stage separation system for spinning vehicles and payloads
[NASA-CASE-XLA-02132] c31 N71-10582
Payload/spent rocket engine case separation system
[NASA-CASE-XLA-05369] c31 N71-15687
High velocity guidance and spin stabilization gyro controlled jet reaction system for launch vehicle payloads
[NASA-CASE-XLA-01339] c31 N71-15692
Payload soft landing system using stowable gas bag
[NASA-CASE-XLA-09881] c31 N71-16085
Zero gravity apparatus utilizing pneumatic decelerating means to create payload subjected to zero gravity conditions by dropping its height
[NASA-CASE-XMF-06515] c14 N71-23227

PCM TELEMETRY

Variable time constant, wide frequency range smoothing network for noise removal from pulse chains
[NASA-CASE-XGS-01983] c10 N70-41964
Data acquisition and processing system with buffer storage and timing device for magnetic tape recording of PCM data and timing information
[NASA-CASE-NPO-12107] c08 N71-27255
High speed direct binary to binary coded decimal converter for use in PCM telemetry systems
[NASA-CASE-KSC-10326] c08 N72-21197

PELLETS

Supporting structure for simultaneous exposure of pellets to X rays
[NASA-CASE-XNP-06031] c15 N71-15606

PELTIER EFFECTS

Use of silicon controlled rectifier shorting circuit to protect thermoelectric generator source from thermal destruction
[NASA-CASE-XGS-04808] c03 N69-25146

PENETRANTS

Dye penetrant and technique for nondestructive tests of solid surfaces contacted by liquid oxygen
[NASA-CASE-XMF-02221] c18 N71-27170

PENETRATION

Method and device for detection of surface discontinuities or defects
[NASA-CASE-MSC-14187-1] c35 N74-32879

PENETROMETERS

- Development and characteristics of penetrometer for measuring physical properties of lunar surface
[NASA-CASE-XLA-00934] c14 N71-22765
- Penetrometer for empirically determining load-bearing characteristics of inclined surfaces of remotely located bodies of soil
[NASA-CASE-NPO-11103] c14 N72-21406
- Portable penetrometer for analyzing soil characteristics
[NASA-CASE-MFS-20774] c14 N73-19420
- Auger-type soil penetrometer for burrowing into soil formations
[NASA-CASE-XNP-05530] c14 N73-32321
- Penetrometer --- for determining load bearing characteristics of inclined surfaces
[NASA-CASE-NPO-11103-1] c35 N77-27367
- PERCEPTION**
Measuring method for cutaneous perception using instrument with elongated tubular housing
[NASA-CASE-MSC-13609-1] c05 N72-25122
- PERFLUORO COMPOUNDS**
Chemical synthesis of hydroxy terminated perfluoro ethers as intermediates for highly fluorinated polyurethane resins
[NASA-CASE-NPO-10768] c06 N71-27254
- Perfluoro polyether acyl fluorides
[NASA-CASE-NPO-10765] c06 N72-20121
- Reaction of polyperfluoropolyenes with fluorine to produce saturated polymer chain or create reactive sites on chain
[NASA-CASE-NPO-10862] c06 N72-22107
- Silphenylenesiloxane polymer with in-chain perfluoroalkyl groups
[NASA-CASE-MFS-20979] c06 N72-25151
- Polymerization of perfluorobutadiene
[NASA-CASE-NPO-10863-2] c06 N72-25152
- Formation of polyurethane resins from hydroxy terminated perfluoro ethers
[NASA-CASE-NPO-10768-2] c06 N72-27144
- Process for preparing disilanol with in-chain perfluoroalkyl groups
[NASA-CASE-MFS-20979-2] c06 N73-32030
- Perfluoro alkylene dioxy-bis-(4-phthalic anhydrides and oxy-bis-(perfluoroalkyleneoxyphthalic anhydrides
[NASA-CASE-MFS-22356-1] c23 N75-30256
- PERFLUOROALKANE**
Preparation of heterocyclic block copolymer from perfluoroalkylene oxide alpha, omega-diaxioximes
[NASA-CASE-ARC-11060-1] c27 N78-10292
- PERFORATED PLATES**
Helium outgassing process for fused glass coating on ion accelerator grid
[NASA-CASE-LEW-10278-1] c15 N71-28582
- PERFORATED SHELLS**
Method of fabricating an article with cavities --- with thin bottom walls
[NASA-CASE-LAR-10318-1] c31 N74-18089
- PERFORMANCE PREDICTION**
Failure detection and control means for improved drift performance of a gimbaled platform system
[NASA-CASE-MFS-23551-1] c04 N76-26175
- PERFORMANCE TESTS**
Flexible, frangible electrochemical cell and package for operation in low temperature environment
[NASA-CASE-XGS-10010] c03 N72-15986
- Test method and equipment for identifying faulty cells or connections in solar cell assemblies
[NASA-CASE-NPO-10401] c03 N72-20033
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- Coherent receiver employing nonlinear coherence detection for carrier tracking
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- Fused silicide coatings containing discrete particles for protecting niobium alloys --- used in space shuttle thermal protection systems and turbine engine components

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[NASA-CASE-LEW-11179-1] c27 N76-16229
 Extreme temperature thermal control coating
 [NASA-CASE-LAR-11756-1] c24 N76-26284
 Reaction cured glass and glass coatings
 [NASA-CASE-ARC-11051-1] c27 N77-10201
 High temperature oxidation resistant cermet
 compositions
 [NASA-CASE-NPO-13666-1] c27 N77-13217
 Intumescent-ablator coatings using endothermic
 fillers
 [NASA-CASE-ABC-11043-1] c34 N77-14372
 Sprayable low density ablator
 [NASA-CASE-MFS-23506-1] c24 N77-15105
 Leading edge protection for composite blades
 [NASA-CASE-LEW-12550-1] c24 N77-19170
 Apparatus for automatically spraying a coating
 material
 [NASA-CASE-MFS-23506-2] c37 N77-20441
 Abrasion resistant coatings for plastic surfaces
 [NASA-CASE-ABC-10915-3] c24 N77-24200
 Fire protection covering for small diameter
 missiles
 [NASA-CASE-ABC-11104-1] c15 N78-13110
 Intumescent coatings containing
 4,4'-dinitrosulfanilide
 [NASA-CASE-ABC-11042-1] c24 N78-14096

PROTECTORS
 Load cell protection device using spring-loaded
 breakaway mechanism
 [NASA-CASE-XMS-06782] c32 N71-15974
 Payload soft landing system using stowable gas bag
 [NASA-CASE-XLA-09881] c31 N71-16085

PROTEINS
 Protein sterilization of firefly luciferase
 without denaturation
 [NASA-CASE-GSC-10225-1] c06 N73-27086

PROTON FLUX DENSITY
 Flame detector operable in presence of proton
 radiation
 [NASA-CASE-MFS-21577-1] c19 N74-29410

PSEUDONOISE
 System designed to reduce time required for
 obtaining synchronization in data
 communication with spacecraft utilizing
 pseudonoise codes
 [NASA-CASE-NPO-10214] c10 N71-26577
 Linear shift register with feedback logic for
 generating pseudonoise linear recurring binary
 sequences
 [NASA-CASE-NPO-11406] c08 N73-12175
 Multicarrier communications system for
 transmitting modulated signals from single
 transmitter
 [NASA-CASE-NPO-11548] c07 N73-26118
 Pseudo-noise test set for communication system
 evaluation --- test signals
 [NASA-CASE-MFS-22671-1] c35 N75-21582

PULLEYS
 Apparatus for measuring load on cable under
 static or dynamic conditions comprising
 pulleys pivoting structure against restraint
 of tension strap
 [NASA-CASE-XMS-04545] c15 N71-22878
 Tensile strength testing device having pulley
 guides for exerting multiple forces on test
 specimen
 [NASA-CASE-XNP-05634] c15 N71-24834

PULMONARY CIRCULATION
 Pulmonary resuscitation method and apparatus
 with adjustable pressure regulator
 [NASA-CASE-XMS-01115] c05 N70-39922

PULMONARY FUNCTIONS
 Piston device for producing known constant
 positive pressure within lungs by using
 thoracic muscles
 [NASA-CASE-XMS-01615] c05 N70-41329

PULSE AMPLITUDE
 Monitoring system for signal amplitude ranges
 over predetermined time interval
 [NASA-CASE-XMS-04061-1] c09 N69-39885
 Analog to digital converter for converting
 pulses to frequencies
 [NASA-CASE-XLA-00670] c08 N71-12501
 Electrical testing apparatus for detecting
 amplitude and width of transient pulse
 [NASA-CASE-XNP-06519] c09 N71-12519
 Analog to digital converter circuit for pulse
 height analysis
 [NASA-CASE-XNP-00477] c08 N73-28045

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Electro-mechanical sine/cosine generator
 [NASA-CASE-LAR-11389-1] c33 N77-26387
 Speech analyzer
 [NASA-CASE-GSC-11898-1] c32 N77-30309

PULSE AMPLITUDE MODULATION
 Voltage controlled oscillators and pulse
 amplitude modulation for signal ratio system
 [NASA-CASE-XMF-04367] c09 N71-23545

PULSE CODE MODULATION
 Adaptive compression signal processor for PCM
 communication systems
 [NASA-CASE-XLA-03076] c07 N71-11266
 Bipolar phase detector and corrector for split
 phase PCM data signals
 [NASA-CASE-XGS-01590] c07 N71-12392
 System for recording and reproducing PCM data
 from data stored on magnetic tape
 [NASA-CASE-XGS-01021] c08 N71-21042
 Frequency shift keying apparatus for use with
 pulse code modulation data transmission system
 [NASA-CASE-XGS-01537] c07 N71-23405
 Data reduction and transmission system for TV
 PCM data
 [NASA-CASE-NPO-11243] c07 N72-20154
 Pulse code modulated data from frequency
 multiplex communications by digital phase
 shift or carrier
 [NASA-CASE-NPO-11338] c08 N72-25208

**Bit synchronization of PCM communications
 signal, without separate synchronization
 channel by digital correlation**
 [NASA-CASE-NPO-11302-1] c07 N73-13149

**Method and apparatus for a single channel
 digital communications system ---
 synchronization of received PCM signal by
 digital correlation with reference signal**
 [NASA-CASE-NPO-11302-2] c32 N74-10132

**Multifunction audio digitizer --- producing
 direct delta and pulse code modulation**
 [NASA-CASE-MSC-13855-1] c35 N74-17885

Pulse code modulated signal synchronizer
 [NASA-CASE-MSC-12462-1] c32 N74-20809

Pulse code modulated signal synchronizer
 [NASA-CASE-MSC-12494-1] c32 N74-20810

**Digital transmitter for data bus communications
 system**
 [NASA-CASE-MSC-14558-1] c32 N75-21486

Compact-bi-phase pulse coded modulation decoder
 [NASA-CASE-KSC-10834-1] c33 N76-14371

**Low distortion receiver for bi-level baseband
 PCM waveforms**
 [NASA-CASE-MSC-14557-1] c32 N76-16249

Differential pulse code modulation
 [NASA-CASE-MSC-12506-1] c32 N77-12239

PULSE COMMUNICATION
 Phase shift data transmission system with
 pseudo-noise synchronization code modulated
 with digital data into single channel for
 spacecraft communication
 [NASA-CASE-XNP-00911] c08 N70-41961

Differential pulse code modulation
 [NASA-CASE-MSC-12506-1] c32 N77-12239

PULSE DURATION
 Overlapping beams of neodymium laser for
 detecting picosecond light pulses
 [NASA-CASE-ERC-10227] c14 N70-12626
 Frequency to analog converters with unipolar
 field effect transistor for determining
 potential charge by pulse duration of input
 signal
 [NASA-CASE-XNP-07040] c08 N71-12500

**Electrical testing apparatus for detecting
 amplitude and width of transient pulse**
 [NASA-CASE-XNP-06519] c09 N71-12519

**Design and development of variable pulse width
 multiplier**
 [NASA-CASE-XLA-02850] c09 N71-20447

**Device for voltage conversion using controlled
 pulse widths and arrangements to generate ac
 output voltage**
 [NASA-CASE-MFS-10068] c10 N71-25139

**One shot multivibrator circuit for producing
 long duration output pulses**
 [NASA-CASE-ARC-10137-1] c09 N71-28468

Pulse stretcher for narrow pulses
 [NASA-CASE-MSC-14130-1] c33 N74-32711

PULSE DURATION MODULATION
 Pulse duration modulation multiplier system
 [NASA-CASE-XEB-09213] c07 N71-12390

- Variable duration pulse integrator design for integrating pulse duration modulated pulses with elimination of ripple content
[NASA-CASE-XIA-01219] c10 N71-23084
- Electric motor control system with pulse width modulation for providing automatic null seeking servc
[NASA-CASE-XMF-05195] c10 N71-24861
- Pulse duration control device for driving slow response time loads in selected sequence including switching and delay circuits and magnetic storage
[NASA-CASE-XGS-04224] c10 N71-26418
- Monostable multivibrator for producing output pulse widths with positive feedback NOF gates
[NASA-CASE-MSC-13492-1] c10 N71-28860
- Load current sensor for series pulse width modulated power supply
[NASA-CASE-GSC-10656-1] c09 N72-25249
- PULSE FREQUENCY MODULATION**
- Electric current measuring apparatus design including saturable core transformer and energy storage device to avoid magnetizing current errors from transformer output winding
[NASA-CASE-XGS-02439] c14 N71-19431
- Digitally controlled frequency synthesizer for pulse frequency modulation telemetry systems
[NASA-CASE-XGS-02317] c09 N71-23525
- Noninterruptible digital counter circuit design with display device for pulse frequency modulation
[NASA-CASE-XNP-09759] c08 N71-24891
- Threshold extension device for improving operating performance of frequency modulation demodulators by eliminating click-type noise impulses
[NASA-CASE-MSC-12165-1] c07 N71-33696
- PULSE GENERATORS**
- High voltage pulse generator for testing flash and ignition limits of nonmetallic materials in controlled atmospheres
[NASA-CASE-MSC-12178-1] c09 N71-13518
- Interrogator and current driver circuit for combination with transistor flip-flop circuit
[NASA-CASE-XGS-03058] c10 N71-19547
- Electric circuit for producing high current pulse having fast rise and fall time
[NASA-CASE-XMS-04919] c09 N71-23270
- Pulse generator for synchronizing or resetting electronic signals without requiring separate external source
[NASA-CASE-XGS-03632] c09 N71-23311
- Development and characteristics of resettable monostable pulse generator with charge rundown-timing circuit
[NASA-CASE-GSC-11139] c09 N71-27016
- Pulse generating circuit for operation at very high duty cycles and repetition rates
[NASA-CASE-XNP-00745] c10 N71-28960
- Pulse coupling circuit with switch between generator and winding
[NASA-CASE-IEW-10413-1] c09 N72-22197
- Method and apparatus for nondestructive testing --- using high frequency arc discharges
[NASA-CASE-MFS-21233-1] c38 N74-15395
- Random pulse generator
[NASA-CASE-MSC-14131-1] c33 N75-19515
- PULSE RATE**
- Circuit for measuring wide range of pulse rates by utilizing high capacity counter
[NASA-CASE-XNP-06234] c10 N71-27137
- Peak holding circuit for extremely narrow pulses
[NASA-CASE-MSC-14129-1] c33 N75-18479
- PULSED LASERS**
- Repetitively pulsed wavelength selective carbon dioxide laser
[NASA-CASE-BRC-10178] c16 N71-24832
- Dually mode locked Nd:YAG laser
[NASA-CASE-GSC-11746-1] c36 N75-19654
- Two wavelength double pulse tunable dye laser
[NASA-CASE-LAB-12012-1] c36 N77-10517
- Isotope separation using metallic vapor lasers
[NASA-CASE-NPO-13550-1] c36 N77-26477
- PULSED RADIATION**
- Development and characteristics of cyclically operable, optical shutter for use as focal plane shutter for transmitting single radiation pulses
[NASA-CASE-NPO-10758] c14 N73-14427
- PULSES**
- High resolution radar transmitting system for transmitting optical pulses to targets
[NASA-CASE-NPO-11426] c07 N73-26119
- PUMP SEALS**
- Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants
[NASA-CASE-XNP-08881] c17 N71-28747
- Spiral groove seal --- for hydraulic rotating shaft
[NASA-CASE-LEW-10326-3] c37 N74-10474
- PUMPS**
- Piezoelectric pump for supplying fluid at high frequencies to gyroscope fluid suspension system
[NASA-CASE-XNP-05429] c26 N71-21824
- Vapor-liquid separator design with vapor driven pump for separated liquid pumping for application in propellant transfer
[NASA-CASE-XNP-04042] c15 N71-23023
- Automatically reciprocating, high pressure pump for use in spacecraft cryogenic propellants
[NASA-CASE-XNP-04731] c15 N71-24042
- Development and characteristics of variable displacement fluid pump for transforming hydraulic pressures
[NASA-CASE-MFS-20830] c15 N71-30028
- Pumping and metering dual piston system and monitor for reaction chamber constituents
[NASA-CASE-GSC-10218-1] c15 N72-21465
- Magnetocaloric pump --- for cryogenic fluids
[NASA-CASE-LEW-11672-1] c37 N74-27904
- PUNCHED CARDS**
- Describing device for flagging punched business cards
[NASA-CASE-XIA-02705] c08 N71-15908
- Handling tool for printed circuit cards
[NASA-CASE-MFS-20453] c15 N71-29133
- PUNCHES**
- Punch and die device for forming convolution series in thin gage metal hemispheres
[NASA-CASE-XNE-05297] c15 N71-23811
- PURGING**
- Carbon dioxide purge systems to prevent condensation in spaces between cryogenic fuel tanks and hypersonic vehicle skin
[NASA-CASE-XIA-01967] c31 N70-42015
- Developing high pressure gas purification and filtration system for use in test operations of space vehicles
[NASA-CASE-MFS-12806] c14 N71-17588
- Fluid transferring system design for purging toxic, corrosive, or noxious fluids and fumes from materials handling equipment for cleansing and accident prevention
[NASA-CASE-XMS-01905] c12 N71-21089
- Device for back purging thrust engines
[NASA-CASE-XMS-04826] c28 N71-28849
- Purging means and method for Xenon arc lamps
[NASA-CASE-NPO-11978] c31 N78-17238
- PURIFICATION**
- Apparatus and method capable of receiving large quantity of high pressure helium, removing impurities, and discharging at received pressure
[NASA-CASE-XNP-06888] c15 N71-24044
- Purification apparatus for vaporization and fractional distillation of liquids
[NASA-CASE-XNP-08124] c15 N71-27184
- Water purification process
[NASA-CASE-ABC-10643-2] c51 N75-13506
- PURITY**
- Synthesis of high purity dianilinosilanes
[NASA-CASE-XNP-06409] c06 N71-23230
- PUSH-PULL AMPLIFIERS**
- Frequency modulated oscillator
[NASA-CASE-MFS-23181-1] c33 N77-17351
- PYRIDINES**
- Nuclear alkylated pyridine aldehyde polymers and conductive compositions thereof
[NASA-CASE-NPO-10557] c27 N78-17214
- PYROGEN**
- Molded composite pyrogen igniter for rocket motors
[NASA-CASE-LAB-12018-1] c20 N76-29365
- PYROLYSIS**
- Pyrolysis system and process --- recovering energy from solid wastes containing hydrocarbons
[NASA-CASE-MSC-12669-1] c44 N76-16621

PYROLYTIC GRAPHITE

- Multislot film cooled pyrolytic graphite rocket nozzle
 - [NASA-CASE-XNP-04389] c28 N71-20942
- PYROLYTIC MATERIALS**
 - Design, development, and characteristics of ablation structures
 - [NASA-CASE-XMS-01816] c33 N71-15623
- PYRORETTERS**
 - Sensor device with switches for measuring surface recession of charring and noncharring ablaters
 - [NASA-CASE-XLA-01781] c14 N65-39975
- PYROTECHNICS**
 - Energy source with tantalum capacitors in parallel and miniature silver oxide button cells for initiating pyrotechnic devices on spacecraft and rocket vehicles
 - [NASA-CASE-LAR-10367-1] c03 N70-26817
 - Development and characteristics of squib actuated explosive disconnect for spacecraft release from launch vehicle
 - [NASA-CASE-NPO-11330] c33 N73-26958

Q

Q SWITCHED LASERS

- Optically detonated explosive device
 - [NASA-CASE-NPO-11743-1] c28 N74-27425
- Spatial filter for Q-switched lasers
 - [NASA-CASE-LEW-12164-1] c36 N77-32478

Q VALUES

- Design of active RC network capable of operating at high Q values with reduced sensitivity to gain amplification and number of passive components
 - [NASA-CASE-ARC-10042-2] c10 N72-11256

QUADRATIC PROGRAMMING

- Quadrature demodulation
 - [NASA-CASE-GSC-12137-1] c32 N77-27272

QUADRATURES

- Automatic quadrature control and measuring system --- using optical coupling circuitry
 - [NASA-CASE-MFS-21660-1] c35 N74-21017

QUALITATIVE ANALYSIS

- Ultraviolet chromatographic detector for quantitative and qualitative analysis of compounds
 - [NASA-CASE-BQN-10756-1] c14 N72-25428
- Analysis of volatile organic compounds --- trace amounts of organic volatiles in gas samples
 - [NASA-CASE-MSC-14428-1] c23 N77-17161

QUANTITATIVE ANALYSIS

- Mixed liquid and vapor phase analyzer design with thermocouples for relative heat transfer measurement
 - [NASA-CASE-NPO-10691] c14 N71-26199
- Quantitative liquid measurements in container by resonant frequencies
 - [NASA-CASE-XNP-02500] c18 N71-27397
- Ultraviolet chromatographic detector for quantitative and qualitative analysis of compounds
 - [NASA-CASE-BQN-10756-1] c14 N72-25428
- Nondispersive gas analysis using radiation detection for quantitative analysis
 - [NASA-CASE-ARC-10308-1] c06 N72-31141
- Analysis of volatile organic compounds --- trace amounts of organic volatiles in gas samples
 - [NASA-CASE-MSC-14428-1] c23 N77-17161

QUANTUM THEORY

- III-V photocathode with nitrogen doping for increased quantum efficiency
 - [NASA-CASE-NPO-12134-1] c33 N76-31409

QUARTZ

- Ultraviolet filter of thorium fluoride and cryolite on quartz base
 - [NASA-CASE-XNP-02340] c23 N69-24332
- Method for attaching a fused-quartz mirror to a conductive metal substrate
 - [NASA-CASE-MFS-23405-1] c26 N77-29260

QUARTZ LAMPS

- High intensity heat and light unit containing quartz lamp elements protectively positioned to withstand severe environmental stress
 - [NASA-CASE-XLA-00141] c09 N70-33312
- Light shield and cooling apparatus --- high intensity ultraviolet lamp
 - [NASA-CASE-LAR-10089-1] c34 N74-23066

R

RACKS (FRAMES)

- Design and development of test stand system for supporting test items in vacuum chamber
 - [NASA-CASE-MFS-21362] c11 N73-20267
- Thrust-isolating mounting --- characteristics of support for loads mounted in spacecraft
 - [NASA-CASE-MFS-21680-1] c18 N74-27397

RADAR ANTENNAS

- Interferometric tuning acquisition and tracking radar antenna system
 - [NASA-CASE-XMS-09610] c07 N71-24625
- Variable beamwidth antenna --- with multiple beam, variable feed system
 - [NASA-CASE-GSC-11862-1] c32 N76-18295
- Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector
 - [NASA-CASE-NPO-13568-1] c32 N76-21365

RADAR ATTENUATION

- FM/CW radar system
 - [NASA-CASE-MFS-22234-1] c32 N76-33364

RADAR DATA

- Charge-coupled device data processor for an airborne imaging radar system
 - [NASA-CASE-NFO-13587-1] c32 N77-32342

RADAR ECHOES

- Charge-coupled device data processor for an airborne imaging radar system
 - [NASA-CASE-NFO-13587-1] c32 N77-32342

RADAR EQUIPMENT

- Spacecraft transponder and ground station radar system for mapping planetary surfaces
 - [NASA-CASE-NFO-11001] c07 N72-21118
- FM/CW radar system
 - [NASA-CASE-MFS-22234-1] c32 N76-33364

RADAR IMAGERY

- Method of locating persons in distress --- by using radar imagery from radar reflectors
 - [NASA-CASE-LAR-11390-1] c32 N77-21267
- Azimuth correlator for real-time synthetic aperture radar image processing
 - [NASA-CASE-NPO-14019-1] c32 N78-11266
- Clutter free synthetic aperture radar correlator
 - [NASA-CASE-NFO-14035-1] c32 N78-18266

RADAR RANGE

- Radar signal receiver arrangement for extending range and increasing signal to noise ratio
 - [NASA-CASE-XNP-00748] c07 N70-36911

RADAR RECEIVERS

- Polarization diversity monopulse tracking receiver design without radio frequency switches
 - [NASA-CASE-XGS-03501] c09 N71-20864

RADAR RECEPTION

- Radar signal receiver arrangement for extending range and increasing signal to noise ratio
 - [NASA-CASE-XNP-00748] c07 N70-36911

RADAR REFLECTORS

- Inflatable radar reflector unit - lightweight, highly reflective to electromagnetic radiation, and adaptable for erection and deployment with minimum effort and time
 - [NASA-CASE-XMS-00893] c07 N70-40063
- Method of locating persons in distress --- by using radar imagery from radar reflectors
 - [NASA-CASE-LAR-11390-1] c32 N77-21267

RADAR TRACKING

- Tracking antenna system with array for synchronous satellite or ground based radar
 - [NASA-CASE-GSC-10553-1] c07 N71-19854
- Polarization diversity monopulse tracking receiver design without radio frequency switches
 - [NASA-CASE-XGS-03501] c09 N71-20864
- Monopulse tracking system with antenna array of three radiators for deriving azimuth and elevation indications
 - [NASA-CASE-XGS-01155] c10 N71-21483
- Plastic sphere for radar tracking and calibration
 - [NASA-CASE-XLA-11154] c07 N72-21117

RADAR TRANSMITTERS

- High resolution radar transmitting system for transmitting optical pulses to targets
 - [NASA-CASE-NPO-11426] c07 N73-26119

RADIAL FLOW

- Radial heat flux transformer for use in heating and cooling processes
 - [NASA-CASE-NPO-10828] c33 N72-17948

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RADIATION MEASURING INSTRUMENTS

- Axially and radially controllable magnetic bearing
[NASA-CASE-GSC-11551-1] c37 N76-18459
- RADIANCE**
Method and apparatus for measuring shock layer
radiation distribution about high velocity
objects
[NASA-CASE-XAC-02970] c14 N69-39896
- RADIANT COOLING**
Direct radiation cooling of linear beam
collector tubes
[NASA-CASE-XNP-09227] c15 N69-24319
- High thermal emittance black surface coatings
and process for applying to metal and metal
alloy surfaces used in radiative cooling of
spacecraft
[NASA-CASE-XLA-06199] c15 N71-24875
- Method for attaching a fused-quartz mirror to a
conductive metal substrate
[NASA-CASE-NFS-23405-1] c26 N77-29260
- RADIANT FLUX DENSITY**
High intensity radiant energy pulse source for
calibrating heat transfer gages with
thermoluminescent shutter activation
[NASA-CASE-ARC-10178-1] c09 N72-17152
- RADIANT HEATING**
High intensity heat and light unit containing
quartz lamp elements protectively positioned
to withstand severe environmental stress
[NASA-CASE-XLA-00141] c09 N70-33312
- High temperature source of thermal radiation
[NASA-CASE-XLE-00490] c33 N70-34545
- Refractory filament series circuitry for radiant
heater
[NASA-CASE-XLE-00387] c33 N70-34812
- Unfired ceramic insulation for protection from
radiant heating environments
[NASA-CASE-NFS-14253] c33 N71-24858
- Portable linear-focused scalar thermal energy
collecting system
[NASA-CASE-NFO-13734-1] c44 N78-10554
- RADIATION**
Development of radiant energy sensor to detect
the radiant energy wavelength bands from
portions of radiating body
[NASA-CASE-ERC-10174] c14 N72-25409
- Development of thermopile with sensor surface to
receive radiant energy and to provide
measurement of energy quantity
[NASA-CASE-NFO-11493] c14 N73-12447
- Analog to digital converter for two-dimensional
radiant energy array computers
[NASA-CASE-GSC-11839-3] c60 N77-32731
- Memory device for two-dimensional radiant energy
array computers
[NASA-CASE-GSC-11839-2] c60 N78-10709
- RADIATION ABSORPTION**
NDIR gas analyzer based on absorption modulation
ratios for known and unknown samples
[NASA-CASE-ARC-10802-1] c35 N75-30502
- RADIATION COUNTERS**
Particle detector for indicating incidence and
energy of minute space particles
[NASA-CASE-XLA-00135] c14 N70-33322
- Sensing method and device for determining
orientation of space vehicle or satellite by
using particle traps
[NASA-CASE-XGS-00466] c21 N70-34297
- Solid state device for mapping flux and power in
nuclear reactor cores
[NASA-CASE-XLE-00301] c14 N70-36808
- Particle beam power density detection and
measurement apparatus
[NASA-CASE-XLE-00243] c14 N70-38602
- Automatic baseline stabilization for ionization
detector used in gas chromatograph
[NASA-CASE-XNP-03128] c10 N70-41991
- Method of forming thin window drifted silicon
charged particle detector
[NASA-CASE-XLE-00808] c24 N71-10560
- Development of dosimeter for measuring absorbed
dose of high energy ionizing radiation
[NASA-CASE-XLA-03645] c14 N71-20430
- Apparatus for detecting particle emission lower
than noise level of multiplier tube
[NASA-CASE-XLA-07813] c14 N72-17328
- Radiation or charged particle detector and
amplifier
[NASA-CASE-NFO-12128-1] c14 N73-32317
- Coaxial anode wire for gas radiation counters
[NASA-CASE-GSC-11492-1] c35 N74-26949
- Particle parameter analyzing system --- x-y
plotter circuits and display
[NASA-CASE-XLE-06094] c33 N78-17293
- RADIATION DAMAGE**
Addition of group 3 elements to silicon
semiconductor material for increased
resistance to radiation damage in solar cells
[NASA-CASE-XLE-02798] c26 N71-23654
- Recovering efficiency of solar cells damaged by
environmental radiation through thermal
annealing
[NASA-CASE-XGS-04047-2] c03 N72-11062
- Photomultiplier circuit including means for
rapidly reducing the sensitivity thereof ---
and protection from radiation damage
[NASA-CASE-ARC-10593-1] c33 N74-27682
- RADIATION DETECTORS**
Radiation source and detection system for
measuring amount of liquid inside tanks
independently of liquid configuration
[NASA-CASE-MSC-12280] c27 N71-16348
- Detection instrument for light emitted from ATP
biochemical reaction
[NASA-CASE-XGS-05534] c23 N71-16355
- Circuit design for determining amount of
photomultiplier tube light detection utilizing
variable current source and dark current
signals of opposite polarity
[NASA-CASE-XMS-03478] c14 N71-21040
- Attitude sensor with scanning mirrors for
detecting orientation of space vehicle with
respect to planet
[NASA-CASE-XLA-00793] c21 N71-22880
- Mosaic semiconductor radiation detector and
position indicator systems engineering for low
energy particles
[NASA-CASE-XGS-03230] c14 N71-23401
- Nondispersive gas analysis using radiation
detection for quantitative analysis
[NASA-CASE-ARC-10308-1] c06 N72-31141
- Radiation source tracker comprised of sector
matrix of detectors with output voltages
corresponding to irradiance levels
[NASA-CASE-NFO-11686] c14 N73-25462
- Radiation or charged particle detector and
amplifier
[NASA-CASE-NFO-12128-1] c14 N73-32317
- Mossbauer spectrometer radiation detector
[NASA-CASE-LAR-11155-1] c35 N74-15091
- High field CDS detector for infrared radiation
[NASA-CASE-LAR-11027-1] c35 N74-18088
- Flame detector operable in presence of proton
radiation
[NASA-CASE-NFS-21577-1] c19 N74-29410
- Wide angle sun sensor --- consisting of
cylinder, insulation and pair of detectors
[NASA-CASE-NFO-13327-1] c35 N75-23910
- Detector absorptivity measuring method and
apparatus
[NASA-CASE-LAR-10907-1] c35 N76-29551
- RADIATION DISTRIBUTION**
Space simulator with uniform test region
radiation distribution, adapted to simulate
Venus solar radiations
[NASA-CASE-XNP-00459] c11 N70-38675
- RADIATION DOSAGE**
Development of dosimeter for measuring absorbed
dose of high energy ionizing radiation
[NASA-CASE-XLA-03645] c14 N71-20430
- RADIATION EFFECTS**
Method for temperature compensating
semiconductor gages by exposure to high energy
radiation
[NASA-CASE-XLA-04555-1] c14 N71-25892
- RADIATION HARDENING**
Radiation hardening of MOS devices by boron ---
for stabilizing gate threshold potential of
field effect device
[NASA-CASE-GSC-11425-1] c76 N74-20329
- RADIATION MEASUREMENT**
Development of thermopile with sensor surface to
receive radiant energy and to provide
measurement of energy quantity
[NASA-CASE-NFO-11493] c14 N73-12447
- RADIATION MEASURING INSTRUMENTS**
Rocket-borne aspect sensor consisting of
radiation sensor, apertured disk, commutator,

- and counting circuits
[NASA-CASE-XGS-08266] c14 N69-27432
- Infrared scanning system for maintaining spacecraft orientation with earth reference
[NASA-CASE-XIA-00120] c21 N70-33181
- Multiple wavelength radiation measuring instrument for determining hot body or gas temperature
[NASA-CASE-XLE-00011] c14 N70-41946
- Development of method for improving signal to noise ratio and accuracy of Wheatstone bridge type radiation measuring instrument
[NASA-CASE-XIA-02810] c14 N71-25901
- Development of thermopile with sensor surface to receive radiant energy and to provide measurement of energy quantity
[NASA-CASE-NFO-11493] c14 N73-12447
- Phototransistor with base collector junction diode for integration into photo sensor arrays
[NASA-CASE-MFS-20407] c09 N73-19235
- Method and apparatus for measuring electromagnetic radiation
[NASA-CASE-LEW-11159-1] c14 N73-28488
- Design of gamma ray spectrometer for measurement of intense radiation using Compton scattering effect
[NASA-CASE-MFS-21441-1] c14 N73-30392
- Coaxial anode wire for gas radiation counters
[NASA-CASE-GSC-11492-1] c35 N74-26949
- RADIATION MEDICINE**
Method of producing I-123 --- by bombardment of cesium causing spallation
[NASA-CASE-LEW-11390-2] c25 N76-27383
- RADIATION PROTECTION**
Development of method for protecting large and oddly shaped areas from radiant and convective heat
[NASA-CASE-XNP-01310] c33 N71-28852
- Cooling and radiation protection of ruby lasers using copper sulfate solution in alcohol
[NASA-CASE-MFS-20180] c16 N72-12440
- Photomultiplier circuit including means for rapidly reducing the sensitivity thereof --- and protection from radiation damage
[NASA-CASE-ABC-10593-1] c33 N74-27682
- RADIATION SHIELDING**
Encapsulated heater forming hollow body for cathode used in ion thruster
[NASA-CASE-LEW-10814-1] c28 N70-35422
- Describing hot filament type Bayard-Alpert ionization gage with ion collector buried or removed from grid structure
[NASA-CASE-XIA-07424] c14 N71-18482
- Sealed housing for protecting electronic equipment against electromagnetic interference
[NASA-CASE-HSC-12168-1] c09 N71-18600
- Internal labyrinth and shield structure to improve electrical isolation of propellant feed source from ion thruster
[NASA-CASE-LEW-10210-1] c28 N71-26781
- Apparatus for aligning shadow shields and cryogenic storage tanks in outer space with the sun
[NASA-CASE-KSC-10622-1] c31 N72-21893
- Light shield and cooling apparatus --- high intensity ultraviolet lamp
[NASA-CASE-LAR-10089-1] c34 N74-23066
- RADIATION SOURCES**
Sight switch using infrared source and sensor mounted beside eye
[NASA-CASE-XMF-03934] c09 N71-22985
- Apparatus for obtaining isotropic irradiation on film emulsion from parallel radiation source
[NASA-CASE-MFS-20095] c24 N72-11595
- Radiation source tracker comprised of sectorized matrix of detectors with output voltages corresponding to irradiance levels
[NASA-CASE-NFO-11686] c14 N73-25462
- High powered arc electrodes --- producing solar simulator radiation
[NASA-CASE-LEW-11162-1] c33 N74-12913
- Electric arc light source having undercut recessed anode
[NASA-CASE-ABC-10266-1] c33 N75-29318
- Apparatus and method for determining the position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410
- RADIATION SPECTRA**
Maksutov spectrograph for low light level research
[NASA-CASE-XLA-10402] c14 N71-29041
- RADIATION THERAPY**
A cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer
[NASA-CASE-GSC-12081-2] c52 N77-26796
- RADIATION TOLERANCE**
Ultraviolet radiation resistant alkali-metal silicate coatings for temperature control of spacecraft
[NASA-CASE-XGS-04119] c18 N69-39979
- Doping silicon material with gadolinium to increase radiation resistance of solar cells
[NASA-CASE-XLE-02792] c26 N71-10607
- Improving radiation resistance of silicon semiconductor junctions by doping with lithium
[NASA-CASE-XGS-07801] c09 N71-12513
- Radiation hardening of MOS devices by boron --- for stabilizing gate threshold potential
[NASA-CASE-GSC-11425-2] c76 N75-25730
- RADIATIVE HEAT TRANSFER**
Heat flux sensor assembly with proviso for heat shield to reduce radiative transfer between sensor elements
[NASA-CASE-XMS-05909-1] c14 N69-27459
- Capillary radiator for carrying heat transfer liquid in planetary spacecraft structures
[NASA-CASE-XLE-03307] c33 N71-14035
- Transient heat transfer gage for measuring total radiant intensity from far ultraviolet and ionized high temperature gases
[NASA-CASE-XNP-09802] c33 N71-15641
- Construction and method of arranging plurality of ion engines to form cluster thereby increasing efficiency and control by decreasing heat radiated to space
[NASA-CASE-XNP-02923] c28 N71-23081
- RADIATORS**
Development and characteristics of natural circulation radiator for use with nuclear power plants installed in lunar space stations
[NASA-CASE-XHQ-03673] c33 N71-29046
- RADIO ANTENNAS**
Low loss parasitic probe antenna for prelaunch tests of spacecraft antennas
[NASA-CASE-XKS-09348] c09 N71-13521
- VHF/UHF parasitic probe antenna for spacecraft communication
[NASA-CASE-XKS-09340] c07 N71-24614
- Development and characteristics of extensible dipole antenna using deformable tubular metallic strip element
[NASA-CASE-HQN-00937] c07 N71-28979
- Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector
[NASA-CASE-NFO-13568-1] c32 N76-21365
- RADIO ASTRONOMY**
Synchronous detection system for detecting weak radio astronomical signals
[NASA-CASE-XNP-09832] c30 N71-23723
- RADIO COMMUNICATION**
A system for synchronizing synthesizers of communication systems
[NASA-CASE-GSC-12148-1] c32 N77-22314
- RADIO CONTROL**
Radio frequency controlled solid state switch
[NASA-CASE-ABC-10136-1] c09 N72-22202
- RADIO EQUIPMENT**
A system for synchronizing synthesizers of communication systems
[NASA-CASE-GSC-12148-1] c32 N77-22314
- RADIO FREQUENCIES**
Helical coaxial resonator RF filter
[NASA-CASE-XGS-02816] c07 N69-24323
- Automatic gain control amplifier system
[NASA-CASE-XMS-05307] c09 N69-24330
- Method and apparatus for bowing of instrument panels to improve radio frequency shielded enclosure
[NASA-CASE-XMF-09422] c07 N71-19436
- Development of automatic frequency discriminators and control for phase lock loop providing frequency preset capabilities
[NASA-CASE-XMF-08665] c10 N71-19467
- System generating sidereal frequency signals from signals of standard solar frequency without use of mixing operations or feedback loops

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RANDOM NOISE

- [NASA-CASE-XGS-02610] c14 N71-23174
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- [NASA-CASE-XGS-01418] c09 N71-23573
Variable frequency nuclear magnetic resonance spectrometer providing drive signals over wide frequency range and minimizing noise effects
- [NASA-CASE-XNP-09830] c14 N71-26266
High efficiency transformerless amplitude modulator coupled to RF power amplifier
- [NASA-CASE-GSC-10668-1] c07 N71-28430
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- [NASA-CASE-LEW-10920-1] c17 N73-24569
Radio frequency source resistance measuring instruments of varied design
- [NASA-CASE-NPO-11291-1] c14 N73-30388
Multichannel logarithmic RF level detector
- [NASA-CASE-LAR-11021-1] c32 N76-14321
Ion and electron detector for use in an ICR spectrometer
- [NASA-CASE-NPO-13479-1] c35 N77-10492
- RADIO FREQUENCY DISCHARGE**
Process for preparing higher oxides of the alkali and alkaline earth metals --- using radio frequency discharge sustained in oxygen
- [NASA-CASE-ARC-10992-1] c25 N77-17178
- RADIO FREQUENCY INTERFERENCE**
Radio frequency noise generator having microwave slow-wave structure in gas discharge plasma
- [NASA-CASE-XRB-11019] c09 N71-23598
System for interference signal nulling by polarization adjustment
- [NASA-CASE-NPO-13140-1] c32 N75-24982
Systems and methods for determining radio frequency interference
- [NASA-CASE-GSC-12150-1] c32 N77-12247
Apparatus and method for determining the position of a radiant energy source
- [NASA-CASE-GSC-12147-1] c35 N77-20410
- RADIO FREQUENCY SHIELDING**
Gunn effect microwave diodes with RF shielding
- [NASA-CASE-ERC-10119] c26 N72-21701
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- [NASA-CASE-GSC-11215-1] c09 N73-28083
- RADIO RECEIVERS**
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- [NASA-CASE-XLA-00901] c07 N71-10775
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- [NASA-CASE-XGS-00740] c07 N71-23098
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- [NASA-CASE-GSC-12142-1] c32 N77-20299
- RADIO RELAY SYSTEMS**
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- [NASA-CASE-XNP-02389] c07 N71-28900
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- [NASA-CASE-GSC-12150-1] c32 N77-12247
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- [NASA-CASE-XLA-00210] c30 N70-40309
Synchronous detection system for detecting weak radio astronomical signals
- [NASA-CASE-XNP-09832] c30 N71-23723
- RADIO SOURCES (ASTRONOMY)**
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- [NASA-CASE-NPO-14009-1] c32 N77-28357
- RADIO STARS**
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- [NASA-CASE-XGS-02610] c14 N71-23174
- RADIO TELEMETRY**
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- [NASA-CASE-XGS-01812] c07 N71-23001
- RADIO TRANSMITTERS**
Vehicle locating system utilizing AM broadcasting station carriers
- [NASA-CASE-NPO-13217-1] c32 N75-26194
Aircraft-mounted crash-activated transmitter device
- [NASA-CASE-MFS-16609-3] c03 N76-32140
- RADIO WAVES**
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- [NASA-CASE-ERC-10119] c26 N72-21701
- RADIOACTIVE ISOTOPES**
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- [NASA-CASE-NPO-10753] c03 N72-26031
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- [NASA-CASE-LEW-11227-1] c73 N75-30876
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- [NASA-CASE-LEW-10518-1] c24 N72-33681
- RADIOGRAPHY**
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- [NASA-CASE-XNP-02588] c15 N71-18613
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- [NASA-CASE-MSC-14276-1] c52 N77-14737
- RADIOLYSIS**
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- [NASA-CASE-LEW-11860-1] c37 N76-18458
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Miniaturized radiometer for detecting low level thermal radiation
- [NASA-CASE-XLA-04556] c14 N69-27484
Black body radiometer design with temperature sensing and cavity heat source cone winding
- [NASA-CASE-XNP-09701] c14 N71-26475
Black body radiometer having isothermally surrounded cavity for ultraviolet, visible, and infrared radiation
- [NASA-CASE-NPO-10810] c14 N71-27323
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- [NASA-CASE-ARC-10138-1] c14 N72-24477
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- [NASA-CASE-ERC-10174] c14 N72-25409
Development of radiometric sensor to warn aircraft pilots of region of clear air turbulence along flight path
- [NASA-CASE-ERC-10081] c14 N72-28437
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- [NASA-CASE-ERC-10276] c14 N73-26432
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- [NASA-CASE-MFS-21108-1] c34 N74-27861
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Induction powered biological radiosonde --- for measuring intracranial pressure
- [NASA-CASE-ARC-11120-1] c52 N77-23743
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- [NASA-CASE-XLA-02619] c10 N71-26334
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Telescoping-spike supersonic nozzle for turbojet or ramjet engines
- [NASA-CASE-XLE-00005] c28 N70-39899
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- [NASA-CASE-NPO-13058-1] c37 N77-22480
- RANDOM LOADS**
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- [NASA-CASE-XLA-02131] c32 N70-42003
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- [NASA-CASE-NPO-10169] c10 N71-24844
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- [NASA-CASE-NPO-11623-1] c71 N74-31148
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[NASA-CASE-GSC-12017-1] c32 N77-30308

RANGE (EXTREMES)
Logarithmic circuit with wide dynamic range
[NASA-CASE-GSC-12145-1] c33 N77-19319

RANGE FINDERS
Closed loop radio communication ranging system to determine distance between moving airborne vehicle and fixed ground station
[NASA-CASE-XNP-01501] c21 N70-41930
Digital demodulator-correlator --- for ranging
[NASA-CASE-NFO-13982-1] c32 N77-24341

RANGEFINDING
Equipment for testing of ground station ranging equipment and spacecraft transponders
[NASA-CASE-XMS-05454-1] c07 N71-12391
Spacecraft ranging system
[NASA-CASE-NPO-10066] c09 N71-18598
Binary coded sequential acquisition ranging system for distance measurements
[NASA-CASE-NPO-11194] c08 N72-25209
Loop transponder for regenerating code of mu-type ranging system
[NASA-CASE-NFO-11707] c07 N73-25161
Orbital and entry tracking accessory for globes --- to provide range requirements for reentry vehicles to any landing site
[NASA-CASE-LAR-10626-1] c19 N74-21015

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Including didymium hydrate in nickel hydroxide of positive electrode of storage batteries to increase ampere hour capacity
[NASA-CASE-XGS-03505] c03 N71-10608

RARE GASES
Inert gas metallic vapor laser
[NASA-CASE-NPO-13449-1] c36 N75-32441
Hydrogen-fueled engine
[NASA-CASE-NFO-13763-1] c37 N77-11398

RAREFIED GAS DYNAMICS
Preparation of dielectric coatings of variable dielectric constant by plasma polymerization
[NASA-CASE-ARC-10892-2] c27 N77-17245

RAREFIED GASES
Magnetically controlled plasma accelerator capable of ignition in low density gaseous environment
[NASA-CASE-XLA-00327] c25 N71-29184

RATES (PER TIME)
Apparatus and digital technique for coding rate data
[NASA-CASE-LAR-10128-1] c08 N73-20217

RC CIRCUITS
RC transistor circuit to indicate each pulse of pulse train and occurrence of nth pulse
[NASA-CASE-XNP-00906] c09 N70-41655
Device utilizing RC rate generators for continuous slow speed measurement
[NASA-CASE-XNP-02966] c10 N71-24863
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[NASA-CASE-XNP-01068] c10 N71-28739
Design of active RC network capable of operating at high Q values with reduced sensitivity to gain amplification and number of passive components
[NASA-CASE-ARC-10042-2] c10 N72-11256
Active RC filter networks and amplifiers for deep space magnetic field measurement
[NASA-CASE-XAC-05462-2] c10 N72-17171
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[NASA-CASE-ARC-10020] c10 N72-17172
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[NASA-CASE-ARC-10192] c09 N72-21245
Temperature control system comprised of wheatstone bridge with RC circuit
[NASA-CASE-NPO-11304] c14 N73-26430
Diode-quad bridge circuit rears
[NASA-CASE-ARC-10364-3] c33 N75-19520

REACTION CONTROL
Development of voice operated controller for controlling reaction jets of spacecraft
[NASA-CASE-XLA-04063] c31 N71-33160

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Satellite stabilization reaction wheel scanner
[NASA-CASE-XGS-02629] c14 N71-21082

Gravity gradient attitude control system with gravity gradiometer and reaction wheels for artificial satellite attitude control
[NASA-CASE-GSC-10555-1] c21 N71-27324

REACTIVITY
Absorbing gas reactivity control system for minimizing power distribution and perturbation in nuclear reactors
[NASA-CASE-XLE-04599] c22 N72-20597

REACTOR CORES
Simulated fuel assembly-type flow measurement apparatus for coolant flow in reactor core
[NASA-CASE-XLE-00724] c14 N70-34669
Solid state device for mapping flux and power in nuclear reactor cores
[NASA-CASE-XLE-00301] c14 N70-36808
Reactor heated in-core diodes for energy conversion
[NASA-CASE-NPO-10542] c09 N72-27228

REACTOR DESIGN
Non-equilibrium radiation nuclear reactor
[NASA-CASE-HQN-10841-1] c73 N76-19920

REACTOR MATERIALS
Zirconium modified nickel-copper alloy
[NASA-CASE-LEW-12245-1] c26 N77-20201

REACTOR PHYSICS
Non-equilibrium radiation nuclear reactor
[NASA-CASE-HQN-10841-1] c73 N76-19920

REACTOR TECHNOLOGY
Nuclear reactor control rod assembly with improved driving mechanism
[NASA-CASE-XLE-00298] c22 N70-34501

READOUT
Flow angle sensor and remote readout system for use with cryogenic fluids
[NASA-CASE-XLE-04503] c14 N71-24864
System for checking status of several double-throw switches by readout indications
[NASA-CASE-XLA-08799] c10 N71-27272

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Respiratory analysis system to determine gas flow rate and frequency of respiration and expiration cycles in real time
[NASA-CASE-MSC-13436-1] c05 N73-32015
Real time moving scene holographic camera system
[NASA-CASE-MFS-21087-1] c35 N74-17153
Real time liquid crystal image converter
[NASA-CASE-LAR-11206-1] c74 N74-30118
Real time, large volume, moving scene holographic camera system
[NASA-CASE-MFS-22537-1] c35 N75-27328
Carbon monoxide monitor --- using real time operation
[NASA-CASE-MFS-22060-1] c35 N75-29380
Real time analysis of voiced sounds
[NASA-CASE-NPO-13465-1] c32 N76-31372
Contour detector and data acquisition system for the left ventricular outline
[NASA-CASE-ARC-10985-1] c52 N77-17701
Real time reflectometer --- measurement of specular reflectance
[NASA-CASE-MFS-23118-1] c35 N77-31465
Azimuth correlator for real-time synthetic aperture radar image processing
[NASA-CASE-NPO-14019-1] c32 N78-11266
System for near real-time crustal deformation monitoring
[NASA-CASE-NPO-14124-1] c46 N78-17529

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Semiconductor in resonant cavity for improving signal to noise ratio of communication receiver
[NASA-CASE-MSC-12259-1] c07 N70-12616
Improved phase lock loop for receiver in multichannel telemetry system with suppressed carrier
[NASA-CASE-NPO-11593-1] c07 N73-28012
Automatic carrier acquisition system for phase locked loop receiver
[NASA-CASE-NPO-11628-1] c07 N73-30113
Coherent receiver employing nonlinear coherence detection for carrier tracking
[NASA-CASE-NPO-11921-1] c32 N74-30523
Low distortion receiver for bi-level baseband PCM waveforms
[NASA-CASE-MSC-14557-1] c32 N76-16249
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[NASA-CASE-MSC-16170-1] c32 N77-12248
Wideband heterodyne receiver for laser communication system

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[NASA-CASE-GSC-12053-1] c32 N77-28346

RECONSTRUCTION
Method and means for recording and reconstructing holograms without use of reference beam
[NASA-CASE-ERC-10020] c16 N71-26154

RECORDING HEADS
Electromagnetic transducer recording head having a laminated core section and tapered gap
[NASA-CASE-NFO-10711-1] c35 N77-21392

RECORDING INSTRUMENTS
Weighing and recording device for obtaining precise automatic record of small changes in force
[NASA-CASE-XLA-02605] c14 N71-10773
Blood pressure measuring system for separately recording dc and ac pressure signals of Korotkoff sounds
[NASA-CASE-IMS-06061] c05 N71-23317
Helical recorder for multiple channel recording
[NASA-CASE-GSC-10614-1] c09 N72-11224
Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control
[NASA-CASE-NFO-11317-2] c36 N74-13205
Holography utilizing surface plasmon resonances
[NASA-CASE-MFS-22040-1] c35 N74-26946
Measuring probe position recorder
[NASA-CASE-LAR-10806-1] c35 N74-32877
Apparatus and method for determining the position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410

RECOVERABILITY
Ejectable underwater sound source recovery assembly
[NASA-CASE-LAR-10595-1] c35 N74-16135

RECOVERABLE LAUNCH VEHICLES
Techniques for recovery of multistage rocket vehicles by providing lifting surfaces on individual sections
[NASA-CASE-IMF-00389] c31 N70-34176

RECOVERABLE SPACECRAFT
Describing assembly for opening stabilizing and decelerating flaps of flight capsules used in space research
[NASA-CASE-IMF-03169] c31 N71-15675

RECOVERY PARACHUTES
Parachute system for lowering manned spacecraft from post-reentry to ocean landing
[NASA-CASE-XLA-00195] c02 N70-38009
Development and operating principles of gas generator for deploying recovery parachutes from space capsules during atmospheric entry
[NASA-CASE-LAR-10549-1] c31 N73-13898

RECTANGULAR PANELS
Rectangular solar cell stacked panels to generate electrical power aboard spacecraft
[NASA-CASE-NFO-11771] c03 N73-20040
Composite sandwich lattice structure
[NASA-CASE-LAR-11898-1] c24 N78-10214

RECTIFIERS
Lithium drifted silicon radiation detector with gold rectifying contacts
[NASA-CASE-XLE-10529] c14 N69-23191
Power control switching circuit using low voltage semiconductor controlled rectifiers for high voltage isolation
[NASA-CASE-IMF-02713] c10 N69-39888
Precision full wave rectifier circuit for rectifying incoming electrical signals having positive or negative polarity with only positive output signals
[NASA-CASE-ARC-10701-1] c09 N71-33109
Voltage amplitude-responsive trigger circuit with silicon controlled rectifier
[NASA-CASE-GSC-10221-1] c09 N72-23171
Dc to ac to dc converter with transistor driven synchronous rectifiers
[NASA-CASE-GSC-11126-1] c09 N72-25253

REDUCED GRAVITY
Reduced gravity liquid configuration simulator to study propellant behavior in rocket fuel tanks
[NASA-CASE-XLE-02624] c12 N69-39988
Apparatus for measuring human body mass in zero or reduced gravity environment
[NASA-CASE-IMS-03371] c05 N76-42000
Cable suspension and inclined walkway system for simulating reduced or zero gravity environments

[NASA-CASE-XLA-01787] c11 N71-16028
Development of restraint system for securing personnel to ergometer while exercising under weightless conditions
[NASA-CASE-MFS-21046-1] c14 N73-27377

REDUCTION (CHEMISTRY)
Producing metal powders of controlled particle size by reducing oxide using reactive metal vapor in vacuum
[NASA-CASE-XLE-06461] c17 N72-22530
Process for making anhydrous metal halides
[NASA-CASE-LEW-11860-1] c37 N76-18458
Simultaneous treatment of SO2 containing stack gases and waste water --- using sewage to scrub exhaust gases
[NASA-CASE-HSC-16258-1] c85 N78-15954

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Redundant memory for enhanced reliability of digital data processing system
[NASA-CASE-GSC-10564] c10 N71-29135

REELS
Tetherline system for orbiting satellites
[NASA-CASE-MFS-23564-1] c13 N77-11079
Method and apparatus for measuring web material wound on a reel
[NASA-CASE-GSC-11902-1] c38 N77-17495

REENTRY COMMUNICATION
Electrostatic modulator for communicating through plasma sheath formed around spacecraft during reentry
[NASA-CASE-XLA-01400] c07 N70-41331
Method and apparatus for communicating through ionized layer of gases surrounding spacecraft during reentry into planetary atmospheres
[NASA-CASE-XLA-01127] c07 N70-41372
Reentry communication by injection of water droplets into plasma layer surrounding space vehicle
[NASA-CASE-XLA-01552] c07 N71-11284

REENTRY SHIELDING
Transpirationally cooled heat ablation system for interplanetary spacecraft reentry shielding
[NASA-CASE-XMS-02677] c31 N70-42075
Method and apparatus for fabrication of heat insulating and ablative reentry structure
[NASA-CASE-XMS-02009] c33 N71-20834
Ablative heat shield for protection from aerodynamic heating of reentry spacecraft
[NASA-CASE-HSC-12143-1] c33 N72-17947
Protected isotope heat source --- for atmospheric reentry protection and heat transmission to spacecraft
[NASA-CASE-LEW-11227-1] c73 N75-30876

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[NASA-CASE-GSC-10186] c08 N71-33110
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[NASA-CASE-NPO-10625] c09 N71-26182

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[NASA-CASE-XFR-00929] c31 N70-34966

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[NASA-CASE-XLA-07473] c15 N71-24895

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[NASA-CASE-XNP-02983] c14 N71-21091

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[NASA-CASE-MSC-90153-2] c05 N72-25120

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[NASA-CASE-XLA-01262] c15 N71-21404

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[NASA-CASE-ERC-10339-1] c18 N73-30532

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[NASA-CASE-LAR-12019-1] c24 N78-17150

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[NASA-CASE-MSC-90153-2] c05 N72-25120

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[NASA-CASE-KSC-10723-1] c37 N75-13265

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[NASA-CASE-XLE-01783] c28 N70-34175

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[NASA-CASE-NPO-13081-1] c33 N74-22814

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[NASA-CASE-HQN-10876-1] c33 N76-27473

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[NASA-CASE-XAC-00404] c08 N70-40125

Cylindrical reflector for resolving wide angle light beam from telescope into narrow beam for spectroscopic analysis

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[NASA-CASE-INP-02500] c18 N71-27397
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[NASA-CASE-MSC-11242] c35 N78-17358

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[NASA-CASE-GSC-10990-1] c09 N73-26195

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[NASA-CASE-YFR-08403] c05 N71-11202

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[NASA-CASE-FRC-10022] c12 N71-26546
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[NASA-CASE-MSC-13436-1] c05 N73-32015
Metabolic analyzer --- for measuring metabolic rate and breathing dynamics of human beings
[NASA-CASE-MFS-21415-1] c52 N74-20728

RESPIROMETERS
Metabolic analyzer --- for measuring metabolic rate and breathing dynamics of human beings
[NASA-CASE-MFS-21415-1] c52 N74-20728

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[NASA-CASE-KSC-10521] c07 N73-20176

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[NASA-CASE-INP-01390] c28 N70-41275
Regenerative cooling system for small rocket engine having restart capability and using noncryogenic hypergolic propellants
[NASA-CASE-XLE-00685] c28 N70-41992

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[NASA-CASE-XMS-01115] c05 N70-39922

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[NASA-CASE-XLE-05913] c33 N71-14032

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[NASA-CASE-IGS-05715] c23 N71-16100
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[NASA-CASE-GSC-11188-2] c21 N73-19630
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[NASA-CASE-GSC-11188-1] c14 N73-32320
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[NASA-CASE-GSC-11188-3] c74 N74-20008

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[NASA-CASE-GSC-11569-1] c89 N74-30886

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[NASA-CASE-XLA-00119] c11 N70-33329
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[NASA-CASE-XMF-07587] c15 N71-18701

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[NASA-CASE-XMS-12158-1] c31 N69-27499
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[NASA-CASE-XMF-01973] c31 N70-41588
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[NASA-CASE-ABC-10721-1] c27 N76-22376

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Multistage multiple reentry axial flow reaction turbine with reverse flow reentry ducting
[NASA-CASE-XLE-00170] c15 N70-36412
Reversible current directing circuitry for reversible motor control
[NASA-CASE-XLA-09371] c10 N71-18724
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[NASA-CASE-LEW-12050-1] c35 N77-32454

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[NASA-CASE-XLE-00164] c15 N70-36411
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[NASA-CASE-XLA-05966] c15 N72-12408
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- RICE**
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[NASA-CASE-MSC-13540-1] c05 N72-33096
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Deployment system for flexible wing with rigid superstructure
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Design of transistorized ring counter circuit with special steering and triggering circuits
[NASA-CASE-XGS-03095] c09 N69-27463
- RING STRUCTURES**
Reversible ring counter using cascaded single silicon controlled rectifier stages
[NASA-CASE-XGS-01473] c09 N71-10673
Nonreusable energy absorbing device comprising ring member with plurality of recesses, cutting members, and guide member mounted in each recess
[NASA-CASE-XNP-10040] c15 N71-22877
Phase-locked servo system --- for synchronizing the rotation of slip ring assembly
[NASA-CASE-MPS-22073-1] c33 N75-13139
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[NASA-CASE-LAR-11745-1] c32 N77-24339
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[NASA-CASE-XLA-04901] c31 N71-24315
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[NASA-CASE-LEW-10814-1] c28 N70-35422
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 - [NASA-CASE-LEW-11930-1] c24 N76-22309
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[NASA-CASE-ARC-10981-1] c35 N77-10498
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Aircraft control system for rotary wing aircraft
[NASA-CASE-BEC-10439] c02 N73-19004

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Variable geometry rotor system for direct control over wake vortex
[NASA-CASE-LAR-10557] c02 N72-11018

Hingeless helicopter rotor with improved stability
[NASA-CASE-ARC-10807-1] c05 N77-17029

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[NASA-CASE-LAR-11900-1] c05 N77-18134

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[NASA-CASE-ARC-11106-1] c05 N77-31130

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[NASA-CASE-XGS-02401] c14 N69-27485

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[NASA-CASE-MFS-11279] c16 N71-20400

Phase-locked servo system --- for synchronizing the rotation of slip ring assembly
[NASA-CASE-MFS-22073-1] c33 N75-13139

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[NASA-CASE-MFS-23051-1] c37 N76-13500

Annular momentum control device used for stabilization of space vehicles and the like
[NASA-CASE-LAR-11051-1] c15 N76-14158

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[NASA-CASE-GSC-11551-1] c37 N76-18459

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[NASA-CASE-MFS-20855-1] c15 N77-10112

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[NASA-CASE-LAR-12007-1] c74 N78-15883

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[NASA-CASE-XLE-05130] c15 N69-21362

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[NASA-CASE-XGS-08266] c14 N69-27432

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[NASA-CASE-XMS-04300] c09 N71-19479

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[NASA-CASE-XGS-05290] c09 N71-25999

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[NASA-CASE-BEC-10065] c09 N71-27364

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[NASA-CASE-XMS-01906] c31 N70-41373

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[NASA-CASE-XLA-03127] c11 N71-10776

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[NASA-CASE-FRC-10071-1] c32 N74-20813

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[NASA-CASE-GSC-10062] c14 N71-15605

Attitude sensor with scanning mirrors for detecting orientation of space vehicle with respect to planet
[NASA-CASE-XLA-00793] c21 N71-22880

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[NASA-CASE-XGS-04173] c19 N71-26674
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[NASA-CASE-GSC-11353-1] c74 N74-21304
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Fluid seal formed by flexible disk on rotating shaft to retain lubricating oils around shaft
[NASA-CASE-XLE-05130-2] c15 N71-19570

Anemometer with braking mechanism to prevent rotation of wind driven elements
[NASA-CASE-IMP-05224] c14 N71-23726

Electromagnetic braking arrangement for controlling rotor rotation in electric motor
[NASA-CASE-IMP-06936] c15 N71-24695

Liquid-vapor interface seal design for turbine rotating shafts including helical and molecular pumps and liquid cooling of mercury vapor
[NASA-CASE-IMP-02862-1] c15 N71-26294

Combination guide and rotary bearing for freely moving shaft
[NASA-CASE-XLA-00013] c15 N71-29136

Development of Hall effect transducer for converting mechanical shaft rotations into proportional electrical signals
[NASA-CASE-LAR-10620-1] c09 N72-25255

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[NASA-CASE-KSC-10752-1] c15 N73-27407

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[NASA-CASE-XLE-10326-4] c37 N74-15125

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[NASA-CASE-KSC-10769-1] c33 N74-29556

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[NASA-CASE-ARC-10461-1] c44 N74-33379

Ergometer calibrator --- for any ergometer utilizing rotating shaft
[NASA-CASE-MFS-21045-1] c35 N75-15932

Fluid seal for rotating shafts
[NASA-CASE-LEW-11676-1] c37 N76-22541

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[NASA-CASE-GSC-11883-2] c37 N77-15400

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[NASA-CASE-GSC-11883-1] c37 N77-19458

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[NASA-CASE-GSC-12138-1] c33 N77-20344

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[NASA-CASE-MFS-23175-1] c35 N77-30436

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Seallinear bearing comprising two rows of roller bearings separated by spherical bearings and permitting rotational and translational movement
[NASA-CASE-XLA-02809] c15 N71-22982

Mechanical actuator wherein linear motion changes to rotational motion
[NASA-CASE-XGS-04548] c15 N71-24045

Positioning mechanism for converting translatory motion into rotary motion
[NASA-CASE-NFO-10679] c15 N72-21462

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Acoustically swept rotor
[NASA-CASE-ARC-11106-1] c05 N77-31130

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Nondestructive method for instrumenting helicopter rotor blades
[NASA-CASE-LAR-11201-1] c35 N77-22452

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Locking device for retaining turbine rotor blades on turbine wheel
[NASA-CASE-IMP-00816] c28 N71-28928

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[NASA-CASE-XLE-00155] c28 N71-29154

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[NASA-CASE-LEW-10533-2] c37 N74-11300

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[NASA-CASE-LEW-11402-1] c07 N74-28226

Apparatus and method for reducing thermal stress in a turbine rotor
[NASA-CASE-LEW-12232-1] c07 N77-18160

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[NASA-CASE-LEW-12608-1] c07 N77-27116

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[NASA-CASE-LEW-12312-1] c07 N77-32148

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Constant lift rotor for a heavier than air craft
[NASA-CASE-ARC-11045-1] c05 N77-28111

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[NASA-CASE-MFS-20385] c09 N71-24904

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Multistage, multiple reentry, single rotor, axial flow turbine
[NASA-CASE-XLE-00085] c28 N70-39895
Describing angular position and velocity sensing apparatus
[NASA-CASE-XGS-05680] c14 N71-17585
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[NASA-CASE-XNP-06507] c09 N71-23548
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[NASA-CASE-XNP-06936] c15 N71-24695
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[NASA-CASE-NPO-11418-1] c14 N73-13420
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[NASA-CASE-LEW-10533-1] c15 N73-28515

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[NASA-CASE-NPO-11433] c18 N71-31140
Formulated plastic separators for soluble electrode cells --- rubber-ion transport sheeting
[NASA-CASE-LEW-12358-1] c44 N77-18560

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Intumescent paint containing nitrile rubber for fire protection
[NASA-CASE-ARC-10196-1] c18 N73-13562

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Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-1] c37 N75-15992
Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-3] c24 N76-19234

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[NASA-CASE-MFS-20180] c16 N72-12440

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Magnetic method for detection of aircraft position relative to runway
[NASA-CASE-ARC-10179-1] c21 N72-22619

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[NASA-CASE-XLA-00119] c11 N70-33329
Spectrally balanced chromatic landing approach lighting system
[NASA-CASE-ARC-10990-1] c04 N77-12031

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Knife structure for controlling rupture of shock tube diaphragms
[NASA-CASE-XAC-00731] c11 N71-15960

S

SAFETY

Safety flywheel
[NASA-CASE-HQM-10888-1] c37 N77-22484

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Helmet and torso tiedown mechanism for shortening pressure suits upon inflation
[NASA-CASE-XMS-00784] c05 N71-12335
Positive locking check valve for stopping reversed flow
[NASA-CASE-XMS-09310] c15 N71-22706
Description of protective device for providing safe operating conditions around work piece in machine or metal working tool
[NASA-CASE-XLE-01092] c15 N71-22797
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[NASA-CASE-XLA-07473] c15 N71-24895
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[NASA-CASE-GSC-11095-1] c14 N72-10375
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[NASA-CASE-MSC-12397-1] c05 N72-25119

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[NASA-CASE-LAR-10941-1] c37 N74-21057
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[NASA-CASE-LAR-10753-1] c08 N74-30421
Shoulder harness and lap belt restraint system
[NASA-CASE-ABC-10519-2] c05 N75-25915
Fifth wheel
[NASA-CASE-FRC-10081-1] c37 N77-14477
An improved vehicular impact absorption system
[NASA-CASE-NFO-14014-1] c37 N77-31501

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Cosmic dust analyzer
[NASA-CASE-MSC-13802-2] c35 N76-15431

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Application techniques for protecting materials during salt bath brazing
[NASA-CASE-XLE-00046] c15 N70-33311

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Gadolinium or samarium doped-silicon semiconductor material with resistance to radiation damage for use in solar cells
[NASA-CASE-XLE-10715] c26 N71-23292

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Portable vacuum probe surface sampler for sampling large surface areas with relatively light loading densities of microorganisms
[NASA-CASE-LAR-10623-1] c14 N73-30395

SAMPLING

Impact bit for cutting, collecting, and storing samples such as lunar rock cuttings
[NASA-CASE-XNP-01412] c15 N70-42034
Design and development of fluid sample collector
[NASA-CASE-XMS-06767-1] c14 N71-20435
Design and development of two types of atmosphere sampling chambers
[NASA-CASE-NFO-11373] c13 N72-25323
Digital to analog converter for sampled signal reconstruction
[NASA-CASE-MSC-12458-1] c08 N73-32081
Rock sampling --- apparatus for controlling particle size
[NASA-CASE-XNP-10007-1] c46 N74-23068
Rock sampling --- method for controlling particle size distribution
[NASA-CASE-XNP-09755] c46 N74-23069
Apparatus for microbiological sampling --- including automatic swabbing
[NASA-CASE-LAR-11069-1] c35 N75-12272
Automatic bioassay sampling
[NASA-CASE-MSC-14640-1] c54 N76-14804
Remote water monitoring system
[NASA-CASE-LAR-11973-1] c43 N77-28563

SANDWICH STRUCTURES

Sandwich panel structure for removing heat from shield between hot and cold areas
[NASA-CASE-XLA-00349] c33 N70-37979
Particle detector for measuring micrometeoroid velocity in space
[NASA-CASE-XLA-00495] c14 N70-41332
Capacitor sandwich structure containing metal sheets of known thickness for counting penetration rates of meteoroids
[NASA-CASE-XLE-01246] c14 N71-10797
Technique for making foldable, inflatable, plastic honeycomb core panels for use in building and bridge structures, light and radio wave reflectors, and spacecraft
[NASA-CASE-XLA-03492] c15 N71-22713
Punch and die device for forming convolution series in thin gage metal hemispheres
[NASA-CASE-XNP-05297] c15 N71-23811
Composite sandwich lattice structure
[NASA-CASE-LAR-11898-1] c24 N78-10214

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Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-1] c37 N75-15992
Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-3] c24 N76-19234

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Monopole antenna system for maximum omnidirectional efficiency for use on satellites
[NASA-CASE-XLA-00414] c07 N70-38200
Development of antenna system for spin stabilized communication satellite for

- simultaneous reception and transmission of data
[NASA-CASE-XGS-02607] c31 N71-23009
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- Photosensitive light source device for detecting
unmanned spacecraft deviation from reference
attitude
[NASA-CASE-XNP-00438] c21 N70-35089
- Attitude control system for spacecraft based on
conversion of incident solar radiation on
movable control surfaces into mechanical torques
[NASA-CASE-XNP-02982] c31 N70-41855
- Design and development of satellite despin device
[NASA-CASE-XNP-08523] c31 N71-20396
- Utilization of momentum devices for forming
attitude control and damping system for
spacecraft
[NASA-CASE-XLA-02551] c21 N71-21708
- Gravity gradient attitude control system with
gravity gradiometer and reaction wheels for
artificial satellite attitude control
[NASA-CASE-GSC-10555-1] c21 N71-27324
- Method and apparatus for providing active
attitude control for spacecraft by converting
any attitude motion of vehicle into simple
rotational motion
[NASA-CASE-HQN-10439] c21 N72-21624
- Momentum wheel design for spacecraft attitude
control and magnetic drum and head system for
data storage
[NASA-CASE-NPO-11481] c21 N73-13644
- Combination automatic-starting electrical plasma
torch and gas shutoff valve --- for satellite
attitude control
[NASA-CASE-XLE-10717] c37 N75-29426
- Attitude control system
[NASA-CASE-MFS-22787-1] c15 N77-10113
- SATELLITE CONTROL**
- Stabilization system for gravity-oriented
satellites using single damper rod
[NASA-CASE-XAC-01591] c31 N71-17729
- SATELLITE DESIGN**
- Inflation system for balloon type satellites
[NASA-CASE-XGS-03351] c31 N71-16081
- SATELLITE INSTRUMENTS**
- Satellite stabilization reaction wheel scanner
[NASA-CASE-XGS-02629] c14 N71-21082
- Economical satellite aided vehicle avoidance
system for preventing midair collisions
[NASA-CASE-ERC-10419] c21 N72-21631
- SATELLITE NETWORKS**
- Satellite network synchronization system with
multiple access to multiplex repeater
[NASA-CASE-GSC-10390-1] c07 N72-11149
- SATELLITE ORBITS**
- Development of method and apparatus for spinning
satellite about selected axis after reaching
predetermined orientation
[NASA-CASE-HQN-00936] c31 N71-29050
- SATELLITE ORIENTATION**
- Sensing method and device for determining
orientation of space vehicle or satellite by
using particle traps
[NASA-CASE-XGS-00466] c21 N70-34297
- Spin phase synchronization of cartwheel
satellite in polar orbit
[NASA-CASE-XGS-05579] c31 N71-15676
- Development of method and apparatus for spinning
satellite about selected axis after reaching
predetermined orientation
[NASA-CASE-HQN-00936] c31 N71-29050
- Analog spatial maneuver computer with three
output angles for obtaining desired spatial
attitude
[NASA-CASE-GSC-10880-1] c08 N72-11172
- SATELLITE PERTURBATION**
- Flexible turnstile antenna system for reducing
nutation in spin-oriented satellites
[NASA-CASE-XNP-00442] c31 N71-10747
- SATELLITE ROTATION**
- Optical scanner mounted on rotating support
structure with method of compensating for
image or satellite rotation
[NASA-CASE-XGS-02401] c14 N69-27485
- Stretch Yo-Yo mechanism for reducing initial
spin rate of space vehicle
[NASA-CASE-XGS-00619] c30 N70-40016
- Development of method and apparatus for spinning
satellite about selected axis after reaching
predetermined orientation
- [NASA-CASE-HQN-00936] c31 N71-29050
- SATELLITE TELEVISION**
- Adaptive signal generating system and logic
circuits for satellite television systems
[NASA-CASE-GSC-11367] c10 N71-26374
- SATELLITE TRACKING**
- Design and development of tracking receiver for
tracking satellites and receiving radio signal
transmissions under adverse noise conditions
[NASA-CASE-XGS-08679] c10 N71-21473
- Simultaneous acquisition of tracking data from
two stations
[NASA-CASE-NPO-13292-1] c32 N75-15854
- Switchable beamwidth monopulse method and system
[NASA-CASE-GSC-11924-1] c33 N76-27472
- SATELLITE TRANSMISSION**
- Asynchronous, multiplexing, single line
transmission and recovery data system --- for
satellite use
[NASA-CASE-NPO-13321-1] c32 N75-26195
- SATELLITE-BORNE PHOTOGRAPHY**
- Rotary solenoid shutter drive assembly and
rotary inertia damper and stop plate assembly
--- for use with cameras mounted in satellites
[NASA-CASE-GSC-11560-1] c33 N76-274861
- SATURATION**
- Saturable magnetic core and signal detection for
indicating impending saturation
[NASA-CASE-ERC-10089] c23 N72-17747
- SAWTOOTH WAVEFORMS**
- Linear sawtooth voltage wave generator with
transistor timing circuit having capacitor and
zener diode feedback loops
[NASA-CASE-XMS-01315] c09 N70-41675
- SCANNERS**
- Electronic and mechanical scanning control
system for monopulse tracking antenna
[NASA-CASE-XGS-05582] c07 N69-27460
- Electronic background suppression field scanning
sensor for detecting point source targets
[NASA-CASE-XGS-05211] c07 N65-39980
- Electron beam scanning system for improved image
definition and reduced power requirements for
video signal transmission
[NASA-CASE-ERC-10552] c09 N71-12539
- Satellite stabilization reaction wheel scanner
[NASA-CASE-XGS-02629] c14 N71-21082
- Monopulse scanning network for scanning
volumetric antenna pattern
[NASA-CASE-GSC-10299-1] c09 N71-24804
- High speed scanner for measuring mass of
preselected gases at high sampling rate
[NASA-CASE-LAR-10766-1] c14 N72-21432
- Scan oscilloscope for mapping surface
sensitivity of photomultiplier tube
[NASA-CASE-LAR-10320-1] c09 N72-23172
- Ultrasonic scanner for radial and flat panels
[NASA-CASE-MFS-20335-1] c35 N74-10415
- Apparatus for scanning the surface of a
cylindrical body
[NASA-CASE-NPO-11861-1] c36 N74-20009
- Fast scan control for deflection type mass
spectrometers
[NASA-CASE-LAR-11428-1] c35 N74-34857
- Magnetometer --- with an automatic scanning
transducer
[NASA-CASE-LAR-11617-2] c35 N77-17430
- SCANNING**
- Conversion system for transforming slow scan
rate of Apollo TV camera on moon to fast scan
of commercial TV
[NASA-CASE-XMS-07168] c07 N71-11300
- Operation of vidicon tube for scanning spatial
charge density pattern
[NASA-CASE-XNP-06028] c09 N71-23189
- Position determination systems --- using orbital
antenna scan of celestial bodies
[NASA-CASE-MSC-12593-1] c17 N76-21250
- SCHLIEREN PHOTOGRAPHY**
- Schlieren system employing antiparallel
reflector in the forward direction
[NASA-CASE-ABC-10971-1] c09 N76-26224
- A system and method for obtaining wide screen
schlieren photographs
[NASA-CASE-NPO-14174-1] c35 N78-18396
- SCHOOLS**
- Silent alarm system for multiple room facility or
school
[NASA-CASE-NPO-11307-1] c10 N73-30205

SCHOTTKY DIODES

- Improved backwall cell
[NASA-CASE-LEW-12236-1] c44 N77-17565
- Method for fabricating solar cells having
integral collector grids
[NASA-CASE-LEW-12819-1] c44 N77-24593
- High voltage, high current Schottky barrier
solar cell
[NASA-CASE-NPO-13482-1] c44 N78-13526

SCOOPS

- Aeroflexible wing structure with air scoop for
inflating stiffeners with ram air
[NASA-CASE-XIA-06095] c01 N69-39981

SCREWS

- Electromechanical control actuator system using
double differential screws
[NASA-CASE-BRC-10022] c15 N71-26635
- Adjustable support device with jacket screw for
altering distance between base and supported
member
[NASA-CASE-NPO-10721] c15 N72-27484

SCRUBBERS

- Developing high pressure gas purification and
filtration system for use in test operations
of space vehicles
[NASA-CASE-MPS-12806] c14 N71-17588
- Process for removing sulfur dioxide from gas
streams --- using iron as a catalyst
[NASA-CASE-MSC-16299-1] c45 N77-31668
- Simultaneous treatment of SO₂ containing stack
gases and waste water --- using sewage to
scrub exhaust gases
[NASA-CASE-MSC-16258-1] c85 N78-15954

SEA ICE

- Laser technique for breaking ice in ship path
[NASA-CASE-LAR-10815-1] c16 N72-22520

SEALERS

- Design and development of flexible joint for
pressure suits
[NASA-CASE-XMS-09636] c05 N71-12344
- Epoxy resin sealing device for electrochemical
cells in high vacuum environments
[NASA-CASE-IGS-02630] c03 N71-22974
- Leak resistant bonded elastomeric seal for
secondary electrochemical cells
[NASA-CASE-IGS-02631] c03 N71-23006
- Self lubricating fluoride-metal composite
materials for outer space applications
[NASA-CASE-XLE-08511] c18 N71-23710
- Polyimides of ether-linked aryl tetracarboxylic
dianhydrides
[NASA-CASE-MPS-22355-1] c23 N76-15268
- Flame-resistant liquid oxygen compatible
neoprene rubber composition
[NASA-CASE-RSC-11020-1] c27 N77-23267

SEALING

- Foil seal between parts moving relative to each
other
[NASA-CASE-XLE-05130] c15 N69-21362
- Sealed electric storage battery with gas
manifold interconnecting each cell
[NASA-CASE-INP-03378] c03 N71-11051
- Epoxy resin sealing device for electrochemical
cells in high vacuum environments
[NASA-CASE-IGS-02630] c03 N71-22974
- Electrode sealing and insulation for fuel cells
containing caustic liquid electrolytes using
powdered plastic and metal
[NASA-CASE-XMS-01625] c15 N71-23022
- Sealing evacuation port and evacuating vacuum
container such as space jackets
[NASA-CASE-INP-03290] c15 N71-23256
- Segmented sealing surface in valve seat
[NASA-CASE-NPO-10606] c15 N72-25451

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- Spacecraft battery seals
[NASA-CASE-XGS-03864] c15 N69-24320
- Flexible inflatable seal for butterfly valves
[NASA-CASE-XLE-00101] c15 N70-33376
- Shrink-fit vacuum system gas valve
[NASA-CASE-IGS-00587] c15 N70-35087
- Thin walled pressure test vessel using
low-melting alloy-filled joint to attach shell
to heads
[NASA-CASE-XLE-04677] c15 N71-10577
- Fluid seal formed by flexible disk on rotating
shaft to retain lubricating oils around shaft
[NASA-CASE-XLE-05130-2] c15 N71-19570

- Sealed storage container for channel carriers
with mounted miniature electronic components
[NASA-CASE-MPS-20075] c09 N71-26133
 - Liquid-vapor interface seal design for turbine
rotating shafts including helical and
molecular pumps and liquid cooling of mercury
vapor
[NASA-CASE-INP-02862-1] c15 N71-26294
 - Spiral groove seal --- for rotating shaft
[NASA-CASE-XLE-10326-4] c37 N74-15125
 - Glass-to-metal seals comprising relatively high
expansion metals
[NASA-CASE-LEW-10698-1] c37 N74-21063
 - High speed, self-acting shaft seal --- for use
in turbine engines
[NASA-CASE-LEW-11274-1] c37 N75-21631
 - Circumferential shaft seal
[NASA-CASE-LEW-12119-1] c37 N76-20488
 - Method of forming shrink-fit compression seal
[NASA-CASE-LAR-11563-1] c37 N77-23482
 - Gas path seal --- for use with turbine engines
[NASA-CASE-LEW-12131-1] c37 N77-24498
 - Shaft seal assembly for high speed and high
pressure applications
[NASA-CASE-LEW-11873-1] c37 N77-27404
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- Sealing apparatus for joining two pieces of
frangible materials
[NASA-CASE-XIA-01494] c15 N71-24164
 - Cord restraint system for pressure suit joints
[NASA-CASE-XMS-09635] c05 N71-24623
 - Method of making pressure tight seal for super
alloy
[NASA-CASE-LAR-10170-1] c37 N74-11301
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- Shoulder harness and lap belt restraint system
[NASA-CASE-ARC-10519-2] c05 N75-25915
- SEATS**
- A seat cushion to provide realistic acceleration
cues for aircraft simulator pilots
[NASA-CASE-LAR-12149-1] c54 N77-31787
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- Journal Bearings
[NASA-CASE-LEW-11076-2] c37 N74-32921
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- Fabrication of curved reflector segments for
solar mirror
[NASA-CASE-XLE-08917] c15 N71-15597
- SEISMIC WAVES**
- Determining sway of buildings by low frequency
device using pendulum
[NASA-CASE-INP-00479] c14 N70-34794
- SELECTORS**
- Selector mechanism for mechanical separation and
discrimination of high velocity molecular
particles
[NASA-CASE-XLE-01533] c11 N71-10777
 - Peak polarity selector for monitoring waveforms
[NASA-CASE-PRC-10010] c10 N71-24862
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alignment during milling operations on large
tank-sections
[NASA-CASE-INP-00908] c14 N70-40238
- SELF ERECTING DEVICES**
- Self-erectable space structures of flexible foam
for application in planetary orbits
[NASA-CASE-XLA-00686] c31 N70-34135
 - Manned space station collapsible for launching
and self-erectable in orbit
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[NASA-CASE-XIA-00258] c31 N70-38676
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self erecting structural member
[NASA-CASE-XLE-00620] c32 N70-41579
 - Antenna design with self erecting mesh reflector
[NASA-CASE-XGS-09190] c31 N71-16102
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[NASA-CASE-XMS-03454] c09 N71-20658
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- Miniature electromechanical junction transducer operating on piezjunction effect and utilizing epoxy for stress coupling component [NASA-CASE-ERC-10087] c14 N71-27334
- Resin for protecting p-n semiconductor junction surface [NASA-CASE-ERC-10339-1] c18 N73-30532
- Method and apparatus for measuring minority carrier lifetimes and bulk diffusion length in P-N junction solar cells [NASA-CASE-NPO-14100-1] c44 N78-19608
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- Binding layer of semiconductor particles by electrodeposition [NASA-CASE-XNP-01959] c26 N71-23043
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- Design of active RC network capable of operating at high Q values with reduced sensitivity to gain amplification and number of passive components [NASA-CASE-ARC-10042-2] c10 N72-11256
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- Bonding method in the manufacture of continuous regression rate sensor devices [NASA-CASE-LAR-10337-1] c24 N75-30260
- Medical subject monitoring systems --- multichannel monitoring systems [NASA-CASE-MSC-14180-1] c52 N76-14757
- SENSORY PERCEPTION**
- Prosthetic limb with tactile sensing device [NASA-CASE-MFS-16570-1] c05 N73-32013

SEPARATED FLOW

Thrust vector control by secondary injection of fluid into rocket nozzle flow field to separate exhaust flow
[NASA-CASE-XLE-00208] c28 N70-34294
Double hinged flap for boundary layer control over trailing edges of wings
[NASA-CASE-XLA-01290] c02 N70-42016
Separation cell with permeable membranes for fluid mixture component separation
[NASA-CASE-XMS-02952] c18 N71-20742
Flow separation detector
[NASA-CASE-ARC-11046-1] c35 N78-14364

SEPARATORS

Condenser-separator for dehumidifying air utilizing sintered metal surface
[NASA-CASE-XLA-08645] c15 N69-21465
Umbilical separator for rockets
[NASA-CASE-XNP-00425] c11 N70-38202
Liquid-gas separator adapted for use in zero gravity environment - drawings
[NASA-CASE-XMS-01624] c15 N70-40062
Describing apparatus for separating gas from cryogenic liquid under zero gravity and for venting gas from fuel tank
[NASA-CASE-XLE-00586] c15 N71-15968
Liquid-gaseous centrifugal separator for weightlessness environment
[NASA-CASE-XLA-00415] c15 N71-16079
Development of liquid separating system using capillary device connected to flexible bladder storage chamber
[NASA-CASE-XMS-13052] c14 N71-20427
Vapor-liquid separator design with vapor driven pump for separated liquid pumping for application in propellant transfer
[NASA-CASE-XNP-04042] c15 N71-23023
Device for removing air from water for use in life support systems in manned space flight
[NASA-CASE-XLA-8914] c15 N73-12492
Centrifugal lyophobic separator
[NASA-CASE-LAR-10194-1] c34 N74-30608
Fluid control apparatus and method
[NASA-CASE-LAR-11110-1] c34 N75-26282
Method and apparatus for fluffing, separating, and cleaning fibers
[NASA-CASE-LAR-11224-1] c37 N76-18456
Flexible formulated plastic separators for alkaline batteries
[NASA-CASE-LEW-12363-1] c44 N76-19552
Inorganic-organic battery separator for alkaline batteries
[NASA-CASE-LEW-12649-1] c44 N76-31674
Gels as battery separators for soluble electrode cells
[NASA-CASE-LEW-12364-1] c44 N77-22606
Low gravity phase separator
[NASA-CASE-MSC-14773-1] c35 N78-12390
Automatic multiple-sample applicator and electrophoresis apparatus
[NASA-CASE-ARC-10991-1] c25 N78-14104

SEQUENCING

Synchronous counter design incorporating cascaded binary stages driven by previous stages and inputs through NAND gates
[NASA-CASE-XGS-02440] c08 N71-19432
Pulse duration control device for driving slow response time loads in selected sequence including switching and delay circuits and magnetic storage
[NASA-CASE-XGS-04224] c10 N71-26418
Digital function generator for generating any arbitrary single valued function
[NASA-CASE-NPO-11104] c08 N72-22165
MCD 2 sequential function generator for multibit sequence, with two-bit shift register for each pair of bits
[NASA-CASE-NPO-10636] c08 N72-25210
Linear shift register with feedback logic for generating pseudonoise linear recurring binary sequences
[NASA-CASE-NPO-11406] c08 N73-12175
Mechanical sequencer
[NASA-CASE-MSC-19536-1] c37 N77-22482

SEQUENTIAL ANALYSIS

Binary coded sequential acquisition ranging system for distance measurements
[NASA-CASE-NPO-11194] c08 N72-25209

Event sequence detector with several input and shift register responsive to clock pulses
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[NASA-CASE-MSC-14916-1] c33 N78-10375

Electrochemical data signal process and display
[NASA-CASE-LAR-11922-1] c25 N78-17171

SIGNAL RECEPTION

Radar signal receiver arrangement for extending range and increasing signal to noise ratio
[NASA-CASE-INP-00748] c07 N70-36911

Reflectometer for receiver input impedance match measurement
[NASA-CASE-INP-10843] c07 N71-11267

Diversity receiving system with diversity phase lock
[NASA-CASE-XGS-01222] c10 N71-20841

Design and development of signal detection and tracking apparatus
[NASA-CASE-XGS-03502] c10 N71-20852

Development of optimum pre-detection diversity combining receiving system adapted for use with amplitude modulation, phase modulation, and frequency modulation systems
[NASA-CASE-XGS-00740] c07 N71-23098

Binary data decoding device for use at receiving end of communication channel
[NASA-CASE-NFO-10118] c07 N71-24741

Development of electronic circuit for combining input signals on two separate antennas to form two processed signals
[NASA-CASE-MSC-12205-1] c07 N71-27056

Input signal measurement using liquid crystalline elements
[NASA-CASE-EBC-10275] c26 N72-25680

Filter for third order phase locked loops in signal receivers
[NASA-CASE-NFO-11941-1] c10 N73-27171

Electromechanical actuator for producing mechanical force and/or motion in response to electrical signals
[NASA-CASE-NPO-11738-1] c09 N73-30185

Scan converting video tape recorder
[NASA-CASE-NFO-10166-2] c35 N76-16391

SIGNAL REFLECTION

Reflectometer for receiver input impedance match measurement
[NASA-CASE-INP-10843] c07 N71-11267

SIGNAL STABILIZATION

Linear accelerator frequency control system
[NASA-CASE-XGS-05441] c10 N71-22962

Development of apparatus for generating output signal commensurate with information contained in input signal
[NASA-CASE-EBC-10041] c08 N71-29138

System for interference signal nulling by polarization adjustment
[NASA-CASE-NPO-13140-1] c32 N75-24982

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Semiconductor in resonant cavity for improving signal to noise ratio of communication receiver
[NASA-CASE-MSC-12259-1] c07 N70-12616

Radar signal receiver arrangement for extending range and increasing signal to noise ratio
[NASA-CASE-INP-00748] c07 N70-36911

Detector assembly for discriminating first signal with respect to presence or absence of second signal at time of occurrence of first signal
[NASA-CASE-XMP-00701] c09 N70-40272

Automatic estimation of signal to noise ratio and other parameters in signal communication systems
[NASA-CASE-INP-05254] c07 N71-20791

Voltage controlled oscillators and pulse amplitude modulation for signal ratio system
[NASA-CASE-XMP-04367] c09 N71-23545

Design and characteristics of recording system for selective reprocessing and filtering of data to obtain optimum signal to noise ratios
[NASA-CASE-ERC-10112] c07 N72-21119

Development of idler feedback system to reduce electronic noise problem in two parametric amplifiers
[NASA-CASE-LAR-10253-1] c09 N72-25258

Superconductive resonant cavity for improved signal to noise ratio in communication signal
[NASA-CASE-MSC-12259-2] c07 N72-33146

Signal to noise ratio determination circuit using bandpass limiter
[NASA-CASE-GSC-11239-1] c10 N73-25241

Gated compressor, distortionless signal limiter
[NASA-CASE-NPO-11820-1] c32 N74-19788

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Demodulator for simultaneous demodulation of two modulating ac signal carriers close in frequency
[NASA-CASE-XMP-01160] c07 N71-11298

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[NASA-CASE-XGS-01590] c07 N71-12392

Automatic estimation of signal to noise ratio and other parameters in signal communication systems
[NASA-CASE-INP-05254] c07 N71-20791

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- [NASA-CASE-XNP-01306] c07 N71-20814
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[NASA-CASE-XNP-01892] c10 N71-22986
Pulse generator for synchronizing or resetting electronic signals without requiring separate external source
[NASA-CASE-XGS-03632] c09 N71-23311
Device for locating electrically nonlinear objects and determining distance to object by FM signal transmission
[NASA-CASE-KSC-10108] c14 N73-25461
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[NASA-CASE-MSC-12462-1] c32 N74-20809
Pulse code modulated signal synchronizer
[NASA-CASE-MSC-12498-1] c32 N74-20810
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[NASA-CASE-MSC-14558-1] c32 N75-21486
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[NASA-CASE-GSC-11743-1] c32 N75-24981
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[NASA-CASE-NPO-13683-1] c35 N77-14411
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[NASA-CASE-GSC-12142-1] c32 N77-20299
Automatic transponder --- measurement of the internal delay time of a transponder
[NASA-CASE-GSC-12075-1] c32 N77-31350
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[NASA-CASE-KSC-11047-1] c74 N78-14889
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[NASA-CASE-XMF-06409] c06 N71-23230
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- SILICA GEL**
Gels as battery separators for soluble electrode cells
[NASA-CASE-LBW-12364-1] c44 N77-22606
- SILICATES**
Ultraviolet radiation resistant alkali-metal silicate coatings for temperature control of spacecraft
[NASA-CASE-XGS-04119] c18 N69-39979
Alkali-metal silicate binders and methods of manufacture
[NASA-CASE-GSC-12303-1] c27 N78-17217
- SILICIDES**
Silicide coating process and composition for protection of refractory metals from oxidation
[NASA-CASE-XLE-10910] c18 N71-29040
Fused silicide coatings containing discrete particles for protecting niobium alloys --- used in space shuttle thermal protection systems and turbine engine components
[NASA-CASE-LBW-11179-1] c27 N76-16229
- SILICON**
Method of forming thin window drifted silicon charged particle detector
[NASA-CASE-XLE-00808] c24 N71-10560
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[NASA-CASE-XLE-10715] c26 N71-23292
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[NASA-CASE-XLE-08569] c03 N71-23449
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[NASA-CASE-ERC-10120] c26 N69-33482
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[NASA-CASE-XLA-00158] c26 N70-36805
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[NASA-CASE-XLA-02057] c26 N70-40015
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[NASA-CASE-LBW-12094-1] c76 N76-25049
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[NASA-CASE-NPO-13969-2] c76 N77-30984
- SILICON COMPOUNDS**
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[NASA-CASE-XLE-02792] c26 N71-10607
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- SILICON CONTROLLED RECTIFIERS**
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[NASA-CASE-XGS-04808] c03 N69-25146
Silicon controlled rectifier inverter with compensation of transients to avoid false gating
[NASA-CASE-XLA-08507] c09 N69-39984
Reversible ring counter using cascaded single silicon controlled rectifier stages
[NASA-CASE-XGS-01473] c09 N71-10673
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[NASA-CASE-XLA-07497] c09 N71-12514
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[NASA-CASE-ERC-10120] c26 N69-33482
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[NASA-CASE-XGS-07801] c09 N71-12513
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[NASA-CASE-LBW-11496-1] c44 N77-14580
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[NASA-CASE-MSC-14270-2] c27 N76-23426
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[NASA-CASE-ARC-10915-2] c27 N77-20256
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[NASA-CASE-NPO-14383-1] c31 N78-18253
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[NASA-CASE-GSC-10695-1] c09 N72-25259
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[NASA-CASE-LAR-10073-1] c37 N76-24575
- SILICONIZING**
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[NASA-CASE-XLA-00284] c15 N71-16075
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[NASA-CASE-NFS-13994-1] c06 N71-11240
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[NASA-CASE-XMF-02584] c06 N71-20905
Synthesis of siloxane containing epoxide and diamine polymers
[NASA-CASE-NFS-13994-2] c06 N72-25148
Silphenylenesiloxane polymer with in-chain perfluoroalkyl groups
[NASA-CASE-NFS-20979] c06 N72-25151
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[NASA-CASE-GSC-11358-1] c06 N73-26100
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[NASA-CASE-XMF-06053] c26 N75-27126
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[NASA-CASE-XNS-02872] c05 N69-21925
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[NASA-CASE-IGS-00963] c15 N69-39735
- SILVER COMPOUNDS**
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[NASA-CASE-HSC-10960-1] c03 N71-24718
- SILVER ZINC BATTERIES**
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[NASA-CASE-XGS-01674] c03 N71-29129
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[NASA-CASE-NFS-12750] c27 N71-16223
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[NASA-CASE-XNS-10804] c05 N71-24606
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[NASA-CASE-NPO-10251] c10 N71-27365
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[NASA-CASE-LAR-11859-1] c36 N78-17367
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[NASA-CASE-LAR-10503-1] c09 N72-21248
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[NASA-CASE-LAR-10310-1] c10 N73-20253
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[NASA-CASE-NPO-10251] c10 N71-27365
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[NASA-CASE-XLA-08645] c15 N69-21465
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[NASA-CASE-LFW-10393-1] c17 N71-15468
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[NASA-CASE-XIZ-06461-2] c17 N72-28535
- SIZE DETERMINATION**
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[NASA-CASE-LAR-10913] c14 N72-16282
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[NASA-CASE-XMF-05114-2] c15 N71-26148
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[NASA-CASE-XLE-00953] c15 N71-15966
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[NASA-CASE-XMF-09770-2] c15 N72-22483
- SKEWNESS**
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[NASA-CASE-XMF-09453] c08 N71-19420
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[NASA-CASE-GSC-11925-1] c33 N76-18353
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[NASA-CASE-XLA-01804] c02 N70-34160
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[NASA-CASE-XNS-09691-1] c18 N71-15545
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SKIN TEMPERATURE (NON-BIOLOGICAL)

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[NASA-CASE-XPR-03802] c33 N71-23085

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[NASA-CASE-MFS-20619] c28 N72-11708

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[NASA-CASE-MSC-13282-1] c05 N71-24729

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[NASA-CASE-XMF-10040] c15 N71-22877
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[NASA-CASE-MFS-22283-1] c37 N75-33395

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[NASA-CASE-XLA-02704] c11 N69-21540

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[NASA-CASE-XMF-04238] c09 N69-39734
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[NASA-CASE-XMF-01049] c15 N71-23049

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[NASA-CASE-XNP-00476] c15 N70-38620
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[NASA-CASE-LAR-10409-1] c31 N74-21059

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[NASA-CASE-XLE-00010] c15 N70-33382

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[NASA-CASE-XNP-01310] c33 N71-28852
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[NASA-CASE-GSC-11214-1] c06 N73-13128
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[NASA-CASE-ARC-10980-1] c27 N77-18265

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[NASA-CASE-XLE-00810] c15 N70-34861
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[NASA-CASE-XMF-02108] c31 N70-36845
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[NASA-CASE-XMF-03856] c31 N70-34159

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- [NASA-CASE-NFO-11001] c07 N72-21118
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- [NASA-CASE-HQN-10439] c21 N72-21624
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- [NASA-CASE-LAR-10295-1] c35 N74-21062

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[NASA-CASE-XLA-00838] c03 N70-36778
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[NASA-CASE-XMS-03792] c14 N70-41812

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[NASA-CASE-XLE-02038] c09 N71-16086

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[NASA-CASE-XMS-01906] c31 N70-41373
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[NASA-CASE-XMF-01543] c31 N71-17730
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[NASA-CASE-GSC-11018-1] c31 N73-30829

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[NASA-CASE-GSC-11444-1] c14 N73-28490
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[NASA-CASE-XMF-00517] c03 N70-34157
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[NASA-CASE-IGS-01593] c03 N70-35408
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[NASA-CASE-XLE-04250] c09 N71-20446
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[NASA-CASE-GSC-10082-1] c10 N72-20221
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[NASA-CASE-XLA-08916-2] c14 N73-28487
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[NASA-CASE-XAC-06029-1] c31 N71-24813
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[NASA-CASE-HFS-14017] c14 N71-26627
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[NASA-CASE-XMS-06162] c31 N71-28851
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[NASA-CASE-XLE-00660] c28 N70-39925
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[NASA-CASE-XLA-10402] c14 N71-29041
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[NASA-CASE-XNP-05231] c14 N73-28491
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[NASA-CASE-NPO-11932-1] c35 N74-23040
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[NASA-CASE-XMF-06065] c15 N71-20395
- Method and apparatus for fabrication of heat
insulating and ablative reentry structure
[NASA-CASE-XMS-02009] c33 N71-20834
- Polarization diversity monopulse tracking
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[NASA-CASE-XGS-03501] c09 N71-20864
- Pneumatic cantilever beams and platform for
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[NASA-CASE-XLA-01731] c32 N71-21045
- Magnetically opened diaphragm design with camera
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[NASA-CASE-XLA-03660] c15 N71-21060
- Portable apparatus producing high velocity
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filtered, superclean air central core for
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[NASA-CASE-XMF-03212] c15 N71-22721
- Rotary spindle lathe attachments for machining
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- Apparatus and method for spin forming tubular
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- Spacecraft air lock system to provide ingress
and egress of astronaut without subjecting
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[NASA-CASE-XLA-02050] c31 N71-22968
- Method of stationkeeping for lenticular gravity
gradient satellites
[NASA-CASE-XLA-03132] c31 N71-22969
- Filler valve design for supplying liquid
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[NASA-CASE-XNP-01747] c15 N71-23024
- Method and apparatus for producing very low
temperature refrigeration based on gas
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[NASA-CASE-XNP-08877] c15 N71-23025
- Monitoring circuit design for sampling circuit
control and reduction of time-bandwidth in
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[NASA-CASE-XNP-02791] c07 N71-23026
- Multisample test chamber for exposing materials
to X rays, temperature change, and gaseous
conditions and determination of material effects
[NASA-CASE-XMS-02930] c11 N71-23042
- Variable duration pulse integrator design for
integrating pulse duration modulated pulses
with elimination of ripple content
[NASA-CASE-XLA-01219] c10 N71-23084
- Sealed electrochemical cell with flexible casing
for varying electrolyte level in cell
[NASA-CASE-XGS-01513] c03 N71-23336
- Mosaic semiconductor radiation detector and
position indicator systems engineering for low
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[NASA-CASE-XGS-03230] c14 N71-23401

- Device for measuring two orthogonal components of force with gallium flotation of measuring target for use in vacuum environments
[NASA-CASE-XAC-04885] c14 N71-23790
- Transducer circuit design with single coaxial cable for input and output connections including incorporation into miniaturized catheter transducer
[NASA-CASE-ARC-10132-1] c09 N71-24597
- Method of attaching cover glass to silicon solar cell without using adhesive
[NASA-CASE-XLE-08569-2] c03 N71-24681
- Development of attitude control system for sounding rocket stabilization during ballistic phase of flight
[NASA-CASE-IGS-01654] c31 N71-24750
- Temperature telemetric transmitter with frequency determining tank circuit for short range transmission
[NASA-CASE-NPO-10649] c07 N71-24840
- Tuning arrangement for frequency control of magnetron-type electron discharge device
[NASA-CASE-XNP-09771] c09 N71-24841
- Broadband modified turnstile antenna for use in space tracking and communications
[NASA-CASE-MSC-12209] c09 N71-24842
- Apparatus to determine electric field strength by measuring deflection of electron beam impinging on target
[NASA-CASE-XNP-06617] c09 N71-24843
- Binary to decimal decoder logic circuit design with feedback control and display device
[NASA-CASE-XKS-06167] c08 N71-24890
- Noninterruptable digital counter circuit design with display device for pulse frequency modulation
[NASA-CASE-XNP-09759] c08 N71-24891
- Quick disconnect duct coupling device for single-handed operation
[NASA-CASE-MFS-20395] c15 N71-24903
- Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed
[NASA-CASE-MFS-20385] c09 N71-24904
- Pneumatic mechanism for releasing hook and loop fasteners between large rigid structures
[NASA-CASE-XMS-10660-1] c15 N71-25975
- Sealed fluorescent tube light unit capable of connection with other units to form string of work lights
[NASA-CASE-XKS-05932] c09 N71-26787
- Apparatus for semiautomatic inspection of microfilmed documents for density, resolution, size, and position
[NASA-CASE-MFS-20240] c14 N71-26788
- Method and apparatus for remote measurement of displacement of marks on specimen undergoing tensile test
[NASA-CASE-NPO-10778] c14 N72-11364
- Spacecraft solar cell system with switching circuit to provide compensation for environmental changes
[NASA-CASE-GSC-10660-1] c03 N72-20031
- Electric storage battery with high impact resistance
[NASA-CASE-NPO-11021] c03 N72-20032
- Method and apparatus for providing active attitude control for spacecraft by converting any attitude motion of vehicle into simple rotational motion
[NASA-CASE-BQN-10439] c21 N72-21624
- Development of light sensing system for controlled orientation of object relative to sun or other light source
[NASA-CASE-NPO-11311] c14 N72-25414
- Development of thrust control system for application to control of aircraft and spacecraft
[NASA-CASE-MSC-13397-1] c21 N72-25595
- Development of computer program for estimating reliability of self-repair and fault-tolerant systems with respect to selected system and mission parameters
[NASA-CASE-NPO-13086-1] c15 N73-12495
- Design and development of active control system for air cushion vehicle to reduce or eliminate effects of excessive vertical vibratory acceleration
[NASA-CASE-LAR-10531-1] c02 N73-13023
- Measurement system for physical quantity represented by or converted to variable frequency signal
[NASA-CASE-MFS-20658-1] c14 N73-30386
- Design of precision vertical alignment system using laser with gravitationally sensitive cavity
[NASA-CASE-ARC-10444-1] c16 N73-33397
- System for calibrating pressure transducer
[NASA-CASE-LAR-10910-1] c35 N74-13132
- Three mirror glancing incidence system for X-ray telescope
[NASA-CASE-MFS-21372-1] c74 N74-27866
- Holographic system for nondestructive testing
[NASA-CASE-MFS-21704-1] c35 N75-25124
- A non-tracking solar energy collector system
[NASA-CASE-NPO-13813-1] c44 N77-19579
- A cantilever mounted resilient pad gas bearing
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- Compact pulsed laser having improved heat conductance
[NASA-CASE-NPO-13147-1] c36 N77-25502

T

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- Digital cardiometer incorporating circuit for measuring heartbeat rate of subject over predetermined portion of one minute also converting rate to beats per minute
[NASA-CASE-XMS-02399] c05 N71-22896
- Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed
[NASA-CASE-MFS-20385] c09 N71-24904
- Development of instantaneous reading tachometer for measuring electrocardiogram signal rate
[NASA-CASE-MFS-20418] c14 N73-24473
- Tachometer
[NASA-CASE-MFS-23175-1] c35 N77-30436

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- Aircraft instrument for indicating malfunctions during takeoff
[NASA-CASE-XLA-00100] c14 N70-36807
- Aircraft indicator for pilot control of takeoff roll, climbout path and verticle flight path in poor visibility conditions
[NASA-CASE-XLA-00487] c14 N70-40157

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- Integrated circuit tangent function generator
[NASA-CASE-MSC-13907-1] c10 N73-26230

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- Liquid propellant tank design with semitoroidal bulkhead
[NASA-CASE-XNP-01899] c31 N70-41948

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- Radiation source and detection system for measuring amount of liquid inside tanks independently of liquid configuration
[NASA-CASE-MSC-12280] c27 N71-16348
- Development of apparatus and method for testing leakage of large tanks
[NASA-CASE-XNP-02392] c32 N71-24285
- Design and development of device to prevent clogging in hoppers containing particulate materials
[NASA-CASE-LAR-10961-1] c15 N73-12496
- Floating baffle for tank drain
[NASA-CASE-KSC-10639] c15 N73-26472
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[NASA-CASE-NPO-13050-1] c36 N75-15029

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- Oxygen-doped tantalum emitter for thermionic devices such as cesium vapor diodes
[NASA-CASE-NPO-11138] c03 N70-34646
- Arc electrode of graphite with tantalum ball tip
[NASA-CASE-XLE-04788] c09 N71-22987
- Organometallic compounds of niobium and tantalum useful for film deposition
[NASA-CASE-XNP-04023] c06 N71-28808
- Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance
[NASA-CASE-LEW-12050-1] c35 N77-32454

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[NASA-CASE-XLA-03105] c15 N69-27483

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Thermal shock and erosion resistant tantalum carbide ceramic material
[NASA-CASE-LAR-11902-1] c27 N78-17206

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Development of thin film temperature sensor from TaO
[NASA-CASE-NFO-11775] c26 N72-28761

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Plural recorder system which limits signal recording to signals of sufficient interest
[NASA-CASE-XMS-06949] c09 N69-21467
Endless loop tape transport mechanism for driving and tensioning recording medium in magnetic tape recorder
[NASA-CASE-XGS-01223] c07 N71-10609
Development of low friction magnetic recording tape
[NASA-CASE-XGS-00373] c23 N71-15978
Tape guidance system for multichannel digital recording system
[NASA-CASE-XNP-09453] c08 N71-19420
Design and development of synchronous servo loop control system
[NASA-CASE-XNP-03744] c10 N71-20448
Development of data storage system for storing digital data in high density format on magnetic tape
[NASA-CASE-XNP-02778] c08 N71-22710
Digital telemetry system apparatus to reduce tape recorder wow and flutter noise during playback
[NASA-CASE-XGS-01812] c07 N71-23001
Tape recorder designed for low power consumption and resistance to operational failure under high stress conditions
[NASA-CASE-XGS-08259] c14 N71-23698
Transient video signal tape recorder with expanded playback
[NASA-CASE-ARC-10003-1] c09 N71-25866
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[NASA-CASE-NFO-10700] c07 N71-33613
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[NASA-CASE-ERC-10112] c07 N72-21119
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[NASA-CASE-NFO-10166-1] c07 N73-22076
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[NASA-CASE-XGS-05211] c07 N69-39980

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[NASA-CASE-XLA-03076] c07 N71-11266
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[NASA-CASE-XNP-10830] c07 N71-11281
Automatic estimation of signal to noise ratio and other parameters in signal communication systems
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[NASA-CASE-NFO-10851] c07 N71-24613
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[NASA-CASE-XNP-03623] c09 N73-28084
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[NASA-CASE-NFO-11921-1] c32 N74-30523
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[NASA-CASE-XAC-00812] c14 N71-15598

Development of temperature compensated light source with components and circuitry for maintaining luminous intensity independent of temperature variations
[NASA-CASE-ARC-10467-1] c09 N73-14214

Method for compression molding of thermosetting plastics utilizing a temperature gradient across the plastic to cure the article
[NASA-CASE-LAR-10489-1] c31 N74-18124

Method and apparatus for checking fire detectors
[NASA-CASE-GSC-11600-1] c35 N74-21019

TEMPERATURE MEASUREMENT

Filter arrangement for controlling light intensity in motion picture camera used in optical pyrometry
[NASA-CASE-XLA-00062] c14 N70-33254

Development of apparatus for measuring thermal conductivity
[NASA-CASE-XGS-01052] c14 N71-15992

Design and characteristics of thermocouples consisting of flexible tape for improved attachment to temperature source
[NASA-CASE-XNP-01659] c14 N71-23039

Black body cavity radiometer with thermal resistance wire bridge circuit
[NASA-CASE-XNP-08961] c14 N71-24809

Design, development, and characteristics of pressure and temperature sensor operating immersed in fluid flow
[NASA-CASE-LEW-10281-1] c14 N72-17327

Development of thermocouple instrument for measuring temperature of wall heated by flowing fluid without disturbing boundary layer
[NASA-CASE-XLE-05230] c14 N72-27410

Thermocouple apparatus for measuring wall temperatures in regeneratively cooled rocket engines having thin walled cooling passages
[NASA-CASE-XLE-05230-2] c14 N73-13417

Thermochromic compositions for detecting heat levels in electronic circuits and devices
[NASA-CASE-NPO-10764-1] c14 N73-14428

Method of fabricating an article with cavities --- with thin bottom walls
[NASA-CASE-LAR-10318-1] c31 N74-18089

Method for determining thermo-physical properties of specimens --- photographic recording of changes in thin film phase-change temperature indicating material in wind tunnel
[NASA-CASE-LAR-11053-1] c25 N74-18551

Wind sensor
[NASA-CASE-NPO-13462-1] c35 N76-24524

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TEST EQUIPMENT

Miniature ingestible telemeter devices to measure deep-body temperature
[NASA-CASE-ABC-10583-1] c52 N76-29894

TEMPERATURE MEASURING INSTRUMENTS

Temperature sensor warning system for pneumatic tires of aircraft and ground vehicles
[NASA-CASE-XIA-01926] c14 N71-15620

Electric network for monitoring temperatures, detecting critical temperatures, and indicating critical time duration
[NASA-CASE-IMP-01097] c10 N71-16058

Electromagnetic energy detection by thermal sensor with vibrating electrode
[NASA-CASE-XAC-10768] c09 N71-18830

Input radio frequency circuit for switching type absolute temperature measuring radiometer for noise sources
[NASA-CASE-ERC-11020] c14 N71-26774

High intensity radiant energy pulse source for calibrating heat transfer gages with thermoluminescent shutter activation
[NASA-CASE-ABC-10178-1] c09 N72-17152

Development of flexible thermocouple in form of tape for adaptation to special temperature measuring conditions
[NASA-CASE-LEW-11072-1] c14 N73-24472

Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance
[NASA-CASE-LEW-12050-1] c35 N77-32454

TEMPERATURE PROBES

Thermally sensitive tuning probe for nullifying detuning effects in microwave cavity resonator of amplifier
[NASA-CASE-IMP-00449] c14 N70-35220

Design, development, and characteristics of pressure and temperature sensor operating immersed in fluid flow
[NASA-CASE-LEW-10281-1] c14 N72-17327

TEMPERATURE SENSORS

Miniaturized radiometer for detecting low level thermal radiation
[NASA-CASE-XIA-04556] c14 N69-27484

Mounting fixture for supporting thermobulb in pipeline
[NASA-CASE-NPO-10158] c33 N71-16356

Mounting apparatus for temperature control system
[NASA-CASE-NPO-10138] c33 N71-16357

Heat flux sensor adapted for mounting on aircraft or spacecraft to measure aerodynamic heat flux inflow to aircraft skin
[NASA-CASE-IFR-03802] c33 N71-23085

Temperature telemetric transmitter with frequency determining tank circuit for short range transmission
[NASA-CASE-NPO-10649] c07 N71-24840

Black body radiometer design with temperature sensing and cavity heat source cone winding
[NASA-CASE-IMP-09701] c14 N71-26475

Thin film capacitive bolometer and capacitance temperature interchange sensor
[NASA-CASE-NPO-10607] c09 N71-27232

Development of thin film temperature sensor from TaO
[NASA-CASE-NPO-11775] c26 N72-28761

Heat detection and compositions and devices therefor
[NASA-CASE-NPO-10764-2] c35 N75-25122

TEMPLATES

Precision surface cutter for screen circuit negatives and other microcircuits
[NASA-CASE-XIA-09843] c15 N72-27485

TENSILE STRENGTH

Method for producing fiber reinforced metallic composites with high strength and elasticity over wide temperature range
[NASA-CASE-XLE-00231] c17 N70-38198

Composites reinforced with short metal fibers or whiskers and having high tensile strength
[NASA-CASE-XLE-00228] c17 N70-38490

Apparatus for tensile strength testing of specimen by pressurized fluid
[NASA-CASE-XKS-06250] c14 N71-15600

Process for fiberizing ceramic materials with high fusion temperatures and tensile strength
[NASA-CASE-IMP-00597] c18 N71-23088

Tensile strength testing device having pulley guides for exerting multiple forces on test specimen
[NASA-CASE-IMP-05634] c15 N71-24834

Device for use in loading tension members --- characterized by elongated elastic body
[NASA-CASE-MFS-21488-1] c14 N75-24794

TENSILE STRESS

Method for testing rocket nozzles at high tensile stress levels
[NASA-CASE-NFO-10311] c31 N71-15643

Device for measuring tensile forces
[NASA-CASE-MFS-21728-1] c35 N74-27865

Solid medium thermal engine
[NASA-CASE-ARC-10461-1] c44 N74-33379

TENSILE TEST

Tensile strength testing device having pulley guides for exerting multiple forces on test specimen
[NASA-CASE-IMP-05634] c15 N71-24834

TENSILE TESTS

Apparatus for tensile strength testing of specimen by pressurized fluid
[NASA-CASE-XKS-06250] c14 N71-15600

Apparatus for measuring load on cable under static or dynamic conditions comprising pulleys pivoting structure against restraint of tension strap
[NASA-CASE-XMS-04545] c15 N71-22878

Method and apparatus for remote measurement of displacement of marks on specimen undergoing tensile test
[NASA-CASE-NPO-10778] c14 N72-11364

Anti-buckling fatigue test assembly --- for subjecting metal specimen to tensile and compressive loads at constant temperature
[NASA-CASE-LAR-10426-1] c09 N74-19528

Method and apparatus for tensile testing of metal foil
[NASA-CASE-LAR-10208-1] c35 N76-18400

Device for tensioning test specimens within an hermetically sealed chamber
[NASA-CASE-MFS-23281-1] c35 N77-22450

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Meter for use in detecting tension in straps having predetermined elastic characteristics
[NASA-CASE-MFS-22189-1] c35 N75-19615

TERMINAL GUIDANCE

Data processing and display system for terminal guidance of X-15 aircraft
[NASA-CASE-IFR-00756] c02 N71-13421

Terminal guidance system --- for guiding aircraft into preselected altitude and/or heading at terminal point
[NASA-CASE-FBC-10049-1] c04 N74-13420

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Vertically descending flight vehicle landing gear for rough terrain
[NASA-CASE-IMP-01174] c02 N70-41589

TEST CHAMBERS

System for continuous monitoring of exhalations, weighing, and cage cleaning for animal exposed to controlled atmosphere for toxic study
[NASA-CASE-XAC-05333] c11 N71-22875

Multisample test chamber for exposing materials to X rays, temperature change, and gaseous conditions and determination of material effects
[NASA-CASE-XMS-02930] c11 N71-23042

Flammability test chamber for testing materials in certain predetermined environments
[NASA-CASE-KSC-10126] c11 N71-24985

Pressure seals suitable for use in environmental test chambers
[NASA-CASE-NPO-10796] c15 N71-27068

Test chamber for determining decomposition and autoignition of materials used in spacecraft under controlled environmental conditions
[NASA-CASE-KSC-10198] c11 N71-28629

Test chambers with orifice and helium mass spectrometer for detecting leak rate of encapsulated semiconductor devices
[NASA-CASE-ERC-10150] c14 N71-28992

Method for measuring biaxial stress in a body subjected to stress inducing loads
[NASA-CASE-MFS-23299-1] c39 N77-28511

TEST EQUIPMENT

Equipment for testing of ground station ranging equipment and spacecraft transponders
[NASA-CASE-XMS-05454-1] c07 N71-12391

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[NASA-CASE-XKS-06250] c14 N71-15600

TEST FACILITIES

SUBJECT INDEX

Development of black-body source calibration furnace
[NASA-CASE-XLB-01399] c33 N71-15625

Design and characteristics of thermocouples consisting of flexible tape for improved attachment to temperature source
[NASA-CASE-XNP-01659] c14 N71-23039

Automatic controlled thermal fatigue testing apparatus
[NASA-CASE-XLA-02059] c33 N71-24276

Development and characteristics of electric circuitry for detecting electrical pulses rise time and amplitude
[NASA-CASE-XNP-08804] c09 N71-24717

Automated ball rebound resilience test equipment for determining viscoelastic properties of polymers
[NASA-CASE-XLA-08254] c14 N71-26161

Portable equipment for validating C band launch pad antennas and transmission lines used for spacecraft checkout
[NASA-CASE-XKS-10543] c07 N71-26292

Acoustic vibration test apparatus for wiring harnesses
[NASA-CASE-MSC-15158-1] c14 N72-17325

Design and development of two types of atmosphere sampling chambers
[NASA-CASE-NPO-11373] c13 N72-25323

Development of apparatus for testing burning rate and flammability of materials
[NASA-CASE-IHS-09690] c33 N72-25913

Development of apparatus for detonating explosive devices in order to determine forces generated and detonation propagation rate
[NASA-CASE-LAR-10800-1] c33 N72-27959

Equipment for vibration testing of assemblies, components, and other articles
[NASA-CASE-GSC-11302-1] c14 N73-13416

Design and development of test stand system for supporting test items in vacuum chamber
[NASA-CASE-MFS-21362] c11 N73-20267

Development and characteristics of apparatus for measuring intensity of electric field in atmosphere
[NASA-CASE-KSC-10730-1] c14 N73-32318

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[NASA-CASE-LAR-10440-1] c14 N73-32323

Wind tunnel model and method
[NASA-CASE-LAR-10812-1] c09 N74-17955

Anti-buckling fatigue test assembly --- for subjecting metal specimen to tensile and compressive loads at constant temperature
[NASA-CASE-LAR-10426-1] c09 N74-19528

Method and apparatus for checking fire detectors
[NASA-CASE-GSC-11600-1] c35 N74-21019

Battery testing device --- for testing cells of multiple-cell battery
[NASA-CASE-MFS-20761-1] c44 N74-27519

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[NASA-CASE-KSC-10750-1] c35 N75-12270

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[NASA-CASE-LAR-11434-1] c35 N76-22509

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[NASA-CASE-LAR-11500-1] c35 N76-24523

Method of and means for testing a tape record/playback system
[NASA-CASE-MFS-22671-2] c35 N77-17426

Method of and means for testing a glancing-incidence mirror system of an X-ray telescope
[NASA-CASE-MFS-22409-2] c74 N78-15880

TEST FACILITIES

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[NASA-CASE-XLE-00252] c11 N70-34844

Test apparatus for determining mechanical properties of refractory materials at high temperatures in vacuum or inert atmospheres
[NASA-CASE-XLB-00335] c14 N70-35368

Gas analyzer for bi-gaseous mixtures suitable for use in test facilities
[NASA-CASE-XLA-01131] c14 N71-10774

Design and characteristics of device for launching models in wind tunnels without disturbance of air flow
[NASA-CASE-XNP-03578] c11 N71-23030

Design, development, and operation of shock tube with bypass piston tunnel
[NASA-CASE-NPO-12109] c11 N72-22245

TEST STANDS

Automatic balancing device for use on frictionless supported attitude-controlled test platforms
[NASA-CASE-LAR-10774] c10 N71-13545

Micro-pound extended range thrust stand for small rocket engines
[NASA-CASE-GSC-10710-1] c28 N71-27094

TETHERING

Force separation rigid tethering device using cables
[NASA-CASE-XLA-02332] c32 N71-17609

Space expandable tether device for use as passageway between two docked spacecraft
[NASA-CASE-XMS-10993] c15 N71-28936

TETHERLINES

Flexible cable that can be made rigid
[NASA-CASE-MSC-13512-1] c15 N72-22485

Tetherline system for orbiting satellites
[NASA-CASE-MFS-23564-1] c13 N77-11079

TETRAPHENYLS

Chemical synthesis of thermally stable organometallic polymers with divalent metal ion and tetraphenylphosphonitrilic units
[NASA-CASE-HCN-10364] c06 N71-27363

TEXTILES

Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant
[NASA-CASE-MSC-14331-1] c27 N76-24405

THERMAL ABSORPTION

Development and characteristics of calorimeter with integral heat sink for maintenance of constant temperature
[NASA-CASE-XNP-04208] c33 N71-29051

THERMAL CONDUCTIVITY

Measuring conductive heat flow and thermal conductivity of laminar gas stream in cylindrical plug to simulate atmospheric reentry
[NASA-CASE-XLE-00266] c14 N70-34156

Development of apparatus for measuring thermal conductivity
[NASA-CASE-XGS-01052] c14 N71-15992

Heated element sensor for fluid flow detection in thermal conductive conduit with adaptive means to determine flow rate and direction
[NASA-CASE-MSC-12084-1] c12 N71-17569

Method and apparatus for adjusting thermal conductance in electronic components for space use
[NASA-CASE-XNP-05524] c33 N71-24876

Thermally conductive polymer for potting electrical components
[NASA-CASE-GSC-11304-1] c06 N72-21105

Electrostatically controlled heat transfer system for conducting thermal energy
[NASA-CASE-NFO-11942-1] c33 N73-32818

Thermal barrier coating system
[NASA-CASE-LFN-12554-1] c34 N78-18355

THERMAL CONDUCTORS

Thermal conductive, electrically insulated cleavable adhesive connection between electronic module and heat sink
[NASA-CASE-XMS-02087] c09 N70-41717

Solar energy absorber
[NASA-CASE-MFS-22743-1] c44 N76-22657

THERMAL CONTROL COATINGS

Low concentration alkaline solution treatment of aluminum with metal phosphate surface coatings to improve chemical bonding and reduce coating weight
[NASA-CASE-XLA-01995] c18 N71-23047

Binder stabilized zinc oxide pigmented coating for spacecraft thermal control
[NASA-CASE-XNP-07770-2] c18 N71-26772

Inorganic thermal control and solar reflector coatings
[NASA-CASE-MFS-20011] c18 N72-22566

Mercaptan terminated polymer containing sulfonic acid salts of nitrosubstituted aromatic amines for heat and moisture resistant coatings
[NASA-CASE-ARC-10325] c06 N72-25147

Lightweight electrically powered flexible thermal laminate --- made of metal filters
[NASA-CASE-MSC-12662-1] c24 N75-16635

Refractory porcelain enamel passive control coating for high temperature alloys
[NASA-CASE-MFS-22324-1] c27 N75-27160

- Particulate and solar radiation stable coating for spacecraft
[NASA-CASE-LAR-10805-2] c34 N77-18382
- Method of preparing zinc orthotitanate pigment
[NASA-CASE-MFS-23345-1] c27 N77-30237
- Electrically conductive thermal control coatings --- for spacecraft shielding
[NASA-CASE-GSC-12207-1] c27 N78-11245
- Intumescent coatings containing 4,4'-dinitrosulfanilide
[NASA-CASE-ARC-11042-1] c24 N78-14096
- Thermal barrier coating system
[NASA-CASE-LEW-12554-1] c34 N78-18355
- High temperature resistant cermet and ceramic compositions --- for thermal resistant insulators and refractory coatings
[NASA-CASE-NFO-13690-1] c27 N78-19302
- THERMAL DEGRADATION**
- Use of silicon controlled rectifier shorting circuit to protect thermoelectric generator source from thermal destruction
[NASA-CASE-XGS-04808] c03 N69-25146
- Electrical failure detector in solid rocket propellant motor insulation against thermal degradation by fuel grain
[NASA-CASE-XMP-03968] c14 N71-27186
- THERMAL ENERGY**
- Direct conversion of thermal energy into electrical energy using crossed electric and magnetic fields
[NASA-CASE-XLE-00212] c03 N70-34134
- Concentrator device for controlling direction of solar energy onto energy converters
[NASA-CASE-XLE-01716] c09 N70-40234
- Storage stable, thermally activated foaming compositions for erecting and rigidizing mechanisms of thin sheet solar collectors
[NASA-CASE-LAR-10373-1] c18 N71-26155
- Gaseous core diffusion nuclear reactor for thermal energy generation
[NASA-CASE-LEW-10250-1] c22 N71-28759
- Electrostatically controlled heat transfer system for conducting thermal energy
[NASA-CASE-NFO-11942-1] c33 N73-32818
- Solid medium thermal engine
[NASA-CASE-ARC-10461-1] c44 N74-33379
- Panel for selectively absorbing solar thermal energy and the method of producing said panel
[NASA-CASE-MFS-22562-1] c44 N76-14595
- Thermal energy storage system --- operating on superheating of liquids
[NASA-CASE-MFS-23167-1] c44 N76-31667
- A thermal energy transformer
[NASA-CASE-NFO-14058-1] c44 N77-30616
- Low to high temperature energy conversion system
[NASA-CASE-NFO-13510-1] c44 N77-32581
- THERMAL EXPANSION**
- Gas valve operated by thermally expanding and contracting device
[NASA-CASE-XLE-00815] c15 N70-35407
- Adjustable rigid mount for trihedral mirror formed of alloy with small coefficient of thermal expansion supporting screws and spring-biased plates
[NASA-CASE-XMP-08907] c23 N71-29123
- Application of spiral, bimetallic strip to create circular motion on mechanical shaft by changing strip temperature
[NASA-CASE-NFO-11283] c09 N72-25260
- Glass-to-metal seals comprising relatively high expansion metals
[NASA-CASE-LEW-10698-1] c37 N74-21063
- THERMAL FATIGUE**
- Automatic controlled thermal fatigue testing apparatus
[NASA-CASE-XLA-02059] c33 N71-24276
- THERMAL INSULATION**
- Low thermal loss piping arrangement for moving cryogenic media through double chamber structure
[NASA-CASE-XMP-08882] c15 N69-39935
- Insulating system for receptacles of liquefied gases using wire cloth for forming first layer
[NASA-CASE-XMP-00341] c15 N70-33323
- Unfired-ceramic, highly reflective composite insulation for large launch vehicles
[NASA-CASE-XMP-01030] c18 N70-41583
- Carbon dioxide purge systems to prevent condensation in spaces between cryogenic fuel tanks and hypersonic vehicle skin
[NASA-CASE-XLA-01967] c31 N70-42015
- Preparation and characteristics of lightweight refractory insulation
[NASA-CASE-XMP-05279] c18 N71-16124
- Development of thermal insulation system for wing and control surfaces of hypersonic aircraft and reentry vehicles
[NASA-CASE-XLA-00892] c33 N71-17897
- Prefabricated multilayered self-evacuating insulation panels using gas with low vapor pressure at cryogenic temperatures for application to storage of cryogenics
[NASA-CASE-XLE-04222] c23 N71-22881
- Light weight plastic foam thermal insulation for cryogenic storage
[NASA-CASE-XLE-02647] c18 N71-23658
- Development of foam insulation for filament wound cryogenic storage tank
[NASA-CASE-XLE-03803] c15 N71-23816
- Multilayer insulation panels for cryogenic liquid containers
[NASA-CASE-MFS-14023] c33 N71-25351
- Double-wall isothermal cylinder containing heat transfer fluid thermal reservoir as spacecraft insulation cover
[NASA-CASE-MFS-20355] c33 N71-25353
- Structure of fabric layers for micrometeoroid protection garment with capability for eliminating heat shorts for use in manufacturing space suits
[NASA-CASE-MSC-12109] c18 N71-26285
- Foam insulation thickness measuring and injection device for spacecraft applications
[NASA-CASE-MFS-20261] c14 N71-27005
- Development of thermal insulation material for insulating liquid hydrogen tanks in spacecraft
[NASA-CASE-XMP-05046] c33 N71-28892
- Para-benzoquinone dioxide and concentrated mineral acid processed to yield intumescent or fire resistant, heat insulating materials
[NASA-CASE-ARC-10304-1] c18 N73-26572
- Development and characteristics of thermal control system for maintaining constant temperature within spacecraft module with wide variations of component heat transfer
[NASA-CASE-GSC-11018-1] c31 N73-30829
- Heater-mixer for stored fluids
[NASA-CASE-ARC-10442-1] c35 N74-15093
- Intumescent composition, foamed product prepared therewith and process for making same
[NASA-CASE-ARC-10304-2] c27 N74-27037
- High current electrical lead --- for thermionic converters
[NASA-CASE-LEW-10950-1] c33 N74-27683
- Structural heat pipe --- for spacecraft wall thermal insulation system
[NASA-CASE-GSC-11619-1] c34 N75-12222
- Insulation foil and method of making
[NASA-CASE-LEW-11484-2] c24 N75-14839
- Thermal insulation attaching means
[NASA-CASE-MSC-12619-1] c39 N75-21671
- Strain arrestor plate for fused silica tile --- bonding of thermal insulation to metallic plates or structural parts
[NASA-CASE-MSC-14182-1] c27 N76-14264
- Ceramic fiber insulating material and methods of producing same --- product development of foams for thermal insulation
[NASA-CASE-MSC-14795-1] c27 N76-15314
- Auger attachment method for insulation --- of spacecraft
[NASA-CASE-MSC-12615-1] c37 N76-19437
- Flexible pile thermal barrier seal
[NASA-CASE-MSC-19568-1] c37 N76-23585
- Extreme temperature thermal control coating
[NASA-CASE-LAR-11756-1] c24 N76-26284
- Intumescent-ablator coatings using endothermic fillers
[NASA-CASE-ARC-11043-1] c34 N77-14372
- Thermal insulation protection means
[NASA-CASE-MSC-12737-1] c34 N77-22423
- Thermal insulation attaching means --- adhesive bonding of felt vibration isolators under ceramic tiles
[NASA-CASE-MSC-12619-2] c16 N77-31237
- THERMAL FLASHES**
- Apparatus for producing monochromatic light from continuous plasma source
[NASA-CASE-XMP-04167-2] c25 N72-24753

THERMAL PROTECTION

- Thermoprotective device for balances
[NASA-CASE-XAC-00648] c14 N70-40400
- Design, development, and characteristics of ablation structures
[NASA-CASE-XMS-01816] c33 N71-15623
- Development of spacecraft radiator cover
[NASA-CASE-MSC-12049] c31 N71-16080
- Characteristics of foamed-in-place ceramic refractory insulating material and method of fabrication
[NASA-CASE-XGS-02435] c18 N71-22998
- Unfired ceramic insulation for protection from radiant heating environments
[NASA-CASE-MFS-14253] c33 N71-24858
- Development of solid state polymer coating for obtaining thermal balance in spacecraft components
[NASA-CASE-XLA-01745] c33 N71-28903
- Anodizing method for providing metal surfaces with temperature reducing coatings against flames
[NASA-CASE-XLE-00035] c33 N71-29151
- Ablative heat shield for protection from aerodynamic heating of reentry spacecraft
[NASA-CASE-MSC-12143-1] c33 N72-17947
- Lightweight fire resistant plastic foam for thermal protection of reentry vehicles and aircraft structures
[NASA-CASE-ABC-10180-1] c28 N72-20767
- Flexible fire retardant polyisocyanate modified neoprene foam --- for thermal protective devices
[NASA-CASE-ARC-10180-1] c27 N74-12814
- Thermal insulation attaching means
[NASA-CASE-MSC-12619-1] c39 N75-21671
- Reaction cured glass and glass coatings
[NASA-CASE-ARC-11051-1] c27 N77-10201
- Adjustable securing base
[NASA-CASE-MSC-19666-1] c37 N78-17383

THERMAL RADIATION

- Miniaturized radiometer for detecting low level thermal radiation
[NASA-CASE-XLA-04556] c14 N69-27484
- Temperature sensitive capacitor device for detecting very low intensity infrared radiation
[NASA-CASE-XNP-09750] c14 N69-39937
- High temperature source of thermal radiation
[NASA-CASE-XLE-00490] c33 N70-34545
- Development and characteristics of thermal radiation shielding of refractory metal foil used for induction furnace
[NASA-CASE-XLE-03432] c33 N71-24145
- Black body cavity radiometer with thermal resistance wire bridge circuit
[NASA-CASE-XNP-08961] c14 N71-24809
- Development of method for protecting large and oddly shaped areas from radiant and convective heat
[NASA-CASE-XNP-01310] c33 N71-28852

THERMAL REACTORS

- Non-equilibrium radiation nuclear reactor
[NASA-CASE-HQN-10841-1] c73 N78-19920

THERMAL RESISTANCE

- Single electrical circuit component combining diode, fuse, and blown indicator with elongated tube of heat resistant transparent material
[NASA-CASE-XKS-03381] c09 N71-22796
- Polyimide foam for the thermal insulation and fire protection
[NASA-CASE-ARC-10464-1] c27 N74-12812
- Dual measurement ablation sensor
[NASA-CASE-LAR-10105-1] c34 N74-15652
- Self-regulating proportionally controlled heating apparatus and technique
[NASA-CASE-GSC-11752-1] c77 N75-20140
- Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-1] c27 N76-28425

THERMAL SHOCK

- Development of equipment for measuring thermal shock resistance of thin discs of material
[NASA-CASE-XLE-02024] c14 N71-22964
- Thermal shock resistant hafnia ceramic materials
[NASA-CASE-LAR-10894-1] c18 N73-14584
- Thermal shock and erosion resistant tantalum carbide ceramic material
[NASA-CASE-LAR-11902-1] c27 N78-17206

THERMAL SIMULATION

- Simulating operation of thermopile vacuum gage tube at high and low pressures
[NASA-CASE-XLA-02758] c14 N71-18481

THERMAL STABILITY

- Bonded solid lubricant coatings of calcium fluoride and binder for high temperature stability
[NASA-CASE-XMS-00259] c18 N70-36400
- Portable environmental control and life support system for astronaut in and out of spacecraft
[NASA-CASE-XMS-09632-1] c05 N71-11203
- Chemical synthesis of thermally stable organometallic polymers with divalent metal ion and tetraphenylphosphonitrilic units
[NASA-CASE-HQN-10364] c06 N71-27363
- Cermet for nuclear fuel constructed by pressing metal coated ceramic particles in die at temperature to cause bonding of metal coatings, and tested for thermal stability
[NASA-CASE-LEW-10219-1] c18 N71-28729
- Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-1] c27 N74-21156
- Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-2] c27 N76-32315
- Thermal compensator for closed-cycle helium refrigerator --- mounted to infrared diode laser
[NASA-CASE-GSC-12168-1] c31 N78-10326

THERMAL STRESSES

- Strain gage for detecting and measuring mechanical strain in thermally strained specimens
[NASA-CASE-PRC-10053] c14 N70-35587
- Multilegged support system for wind tunnel test models subjected to thermal dynamic loading
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angulation, and lateral offset in any position
about axis
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adhesive coated head portion
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tool for forming studs in honeycomb material
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[NASA-CASE-XLA-03273] c14 N71-18699
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[NASA-CASE-NPO-11087] c23 N71-29125
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[NASA-CASE-XMS-09610] c07 N71-24625
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[NASA-CASE-NFS-20068] c07 N71-27191
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[NASA-CASE-NFS-13687-2] c09 N72-22198
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[NASA-CASE-ERC-10285] c10 N73-16206
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[NASA-CASE-NPO-11850-1] c32 N74-12912
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[NASA-CASE-NPO-11001] c07 N72-21118
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[NASA-CASE-NPO-11707] c07 N73-25161
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[NASA-CASE-IMF-00580] c11 N70-35383
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[NASA-CASE-NPO-13131-1] c36 N75-19652
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[NASA-CASE-IGS-10518] c16 N71-28554
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[NASA-CASE-IXP-00411] c11 N70-36913
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[NASA-CASE-ABC-10137-1] c09 N71-28468
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[NASA-CASE-GSC-10221-1] c09 N72-23171
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[NASA-CASE-XLE-2529-3] c33 N74-20859

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[NASA-CASE-NFO-10714] c06 N69-31244
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[NASA-CASE-LEW-12053-2] c23 N77-32244
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[NASA-CASE-LEW-12053-1] c27 N78-15276

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[NASA-CASE-LAR-12095-1] c39 N77-27432

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[NASA-CASE-NFO-13732-1] c44 N77-19581

TUBE CATHODES
Dual membrane, hollow fiber fuel cell
[NASA-CASE-NFO-13732-1] c44 N77-19581

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[NASA-CASE-XLE-01783] c28 N70-34175
Gas chromatographic method for determining water in nitrogen tetroxide rocket propellant
[NASA-CASE-NFO-10234] c06 N72-17094
Liquid cooled brassiere and method of diagnosing malignant tumors therewith
[NASA-CASE-ABC-11007-1] c52 N77-14736

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Forming tubes from long thin flat metal strips
[NASA-CASE-XGS-04175] c15 N71-18579
Hermetic sealing device for ends of tubular bodies during materials testing operations
[NASA-CASE-NFO-10431] c15 N71-29132

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[NASA-CASE-XGS-02437] c15 N69-21472

TUMORS
Liquid cooled brassiere and method of diagnosing malignant tumors therewith
[NASA-CASE-ABC-11007-1] c52 N77-14736

TUNGSTEN
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[NASA-CASE-XGS-04554] c15 N69-39786
Method for producing porous tungsten plates for ionizing cesium compounds for propulsion of ion engines
[NASA-CASE-XLE-00455] c28 N70-38197
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[NASA-CASE-XLE-02578] c25 N71-20747
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Deployable flexible tunnel
[NASA-CASE-NFS-22636-1] c37 N76-22540

TURBINE BLADES
Transpiration cooled turbine blade made from metallic or ceramic wares
[NASA-CASE-XLE-00020] c15 N70-33226
Modification and improvement of turbine blades for maximum cooling efficiency
[NASA-CASE-XLE-00092] c15 N70-33264
Preparation of nickel alloys for jet turbine blades operating at high temperatures
[NASA-CASE-XLE-00151] c17 N70-33283
External device for liquid spray cooling of gas turbine blades
[NASA-CASE-XLE-00037] c28 N70-33372
Apparatus for liquid spray cooling of turbine blades
[NASA-CASE-XLE-00027] c33 N71-29152
Process for welding compressor and turbine blades to rotors and discs of jet engines
[NASA-CASE-LEW-10533-1] c15 N73-28515
Apparatus and method for reducing thermal stress in a turbine rotor
[NASA-CASE-LEW-12232-1] c07 N77-18160
Leading edge protection for composite blades
[NASA-CASE-LEW-12550-1] c24 N77-19170

TURBINE ENGINES
High speed, self-acting shaft seal --- for use in turbine engines
[NASA-CASE-LEW-11274-1] c37 N75-21631
Gas path seal --- for use with turbine engines
[NASA-CASE-LEW-12131-1] c37 N77-24498
Dual cycle aircraft turbine engine
[NASA-CASE-LAR-11310-1] c07 N77-28118

TURBINE PUMPS
Pulsed energy power system for application of combustible gases to turbine controlling ac voltage generator
[NASA-CASE-MSC-13112] c03 N71-11057
Portable cryogenic cooling system design including turbine pump, cooling chamber, and atomizer
[NASA-CASE-NFO-10467] c23 N71-26654
Supersonic-combustion rocket
[NASA-CASE-LEW-11058-1] c20 N74-13502

TURBINE WHEELS
Locking device for retaining turbine rotor blades on turbine wheel
[NASA-CASE-XNP-00816] c28 N71-28928
Apparatus for welding blades to rotors
[NASA-CASE-LEW-10533-2] c37 N74-11300
Blade retainer assembly
[NASA-CASE-LEW-12608-1] c07 N77-27116

TURBINES
Liquid-vapor interface seal design for turbine rotating shafts including helical and molecular pumps and liquid cooling of mercury vapor
[NASA-CASE-XNP-02862-1] c15 N71-26294

TURBOCOMPRESSORS
Multistage multiple reentry axial flow reaction turbine with reverse flow reentry ducting
[NASA-CASE-XLE-00170] c15 N70-36412

TURBOFAN ENGINES

Supersonic fan blading --- noise reduction in turbofan engines
[NASA-CASE-LEW-11402-1] c07 N74-28226
Noise suppressor --- for turbofan engine by incorporating annular acoustically porous elements in exhaust and inlet ducts
[NASA-CASE-LAR-11141-1] c07 N74-32418
Noise suppressor for turbo fan jet engines
[NASA-CASE-ARC-10812-1] c07 N76-18131
Variable thrust nozzle for quiet turbofan engine and method of operating same
[NASA-CASE-LEW-12317-1] c07 N78-17055

TURBOPANS

Dual output variable pitch turbofan actuation system
[NASA-CASE-LEW-12419-1] c07 N77-14025
Reverse pitch fan with divided splitter
[NASA-CASE-LEW-12760-1] c07 N77-17059

TURBOJET ENGINES

Telescoping-spike supersonic nozzle for turbojet or ramjet engines
[NASA-CASE-XLE-00005] c28 N70-39899
Design and development of gas turbine combustion unit with nozzle guide vanes for introducing diluent air into combustion gases
[NASA-CASE-XLE-103477-1] c28 N71-20330
Reduction of nitric oxide emissions from a combustor
[NASA-CASE-ARC-10814-2] c25 N77-31260

TURBOMACHINE BLADES

Platform for a swing root turbomachinery blade
[NASA-CASE-LEW-12312-1] c07 N77-32148

TURBOMACHINERY

Blade vibration damping pins for turbomachinery
[NASA-CASE-XLE-00155] c28 N71-29154
Method and turbine for extracting kinetic energy from a stream of two-phase fluid
[NASA-CASE-NFO-14130-1] c37 N78-11398

TURBOSHAPTS

Remote-reading torque meter for use where high horsepower are transmitted at high rotational speeds
[NASA-CASE-XLE-00503] c14 N70-34818
High speed, self-acting shaft seal --- for use in turbine engines
[NASA-CASE-LEW-11274-1] c37 N75-21631

TURBULENCE METERS

Turbulence intensity indicator
[NASA-CASE-LAR-11833-1] c06 N76-31229

TURBULENT FLOW

Exhaust flow deflector --- for ducted gas flow
[NASA-CASE-LAR-11570-1] c34 N76-18364
System for measuring Reynolds in a turbulently flowing fluid --- signal processing
[NASA-CASE-ARC-10755-2] c34 N76-27517
System for measuring three fluctuating velocity components in a turbulently flowing fluid
[NASA-CASE-ARC-10974-1] c34 N77-27345

TURBULENT WAKES

Vortex attenuation method --- for multi-engine aircraft
[NASA-CASE-LAR-12034-1] c02 N77-22045

TURNSTILE ANTENNAS

Flexible turnstile antenna system for reducing nutation in spin-oriented satellites
[NASA-CASE-XMP-00442] c31 N71-10747
Broadband modified turnstile antenna for use in space tracking and communications
[NASA-CASE-HSC-12209] c09 N71-24842
Turnstile slot antenna
[NASA-CASE-GSC-11428-1] c32 N74-20864
Turnstile and flared cone UHF antenna
[NASA-CASE-LAR-10970-1] c33 N76-14372

TURBET

Indexing mechanism for cathode array substitution in electron beam tube
[NASA-CASE-NFO-10625] c09 N71-26182

TWO BODY PROBLEM

Instrument for measuring potentials on two dimensional electric field plot
[NASA-CASE-XLA-08493] c10 N71-19421

TWO DIMENSIONAL BODIES

Two dimensional wedge/translating shroud nozzle
[NASA-CASE-LAR-11919-1] c07 N76-22202
Two-dimensional radiant energy array computers and computing devices
[NASA-CASE-GSC-11839-1] c60 N77-14751

TWO PHASE FLOW

Solenoid two-step valve for bipropellant flow rate control to rocket engine
[NASA-CASE-XMS-04890-1] c15 N70-22192
Two phase fluid pressurization system for propellant tank
[NASA-CASE-HSC-12390] c27 N71-29155
Two-phase flow system with discrete, impinging two-phase jets
[NASA-CASE-NFO-11556] c12 N72-25292

TYPEWRITERS

Guide for a typewriter
[NASA-CASE-HFS-15218-1] c37 N77-19457

U

U BENDS

Elbow forming in jacketed pipes while maintaining separation between core shape and jacket pipes
[NASA-CASE-XNP-10475] c15 N71-24679
U shaped heated tube for distillation and purification of liquid metals
[NASA-CASE-XNP-08124-2] c06 N73-13129

ULCERS

Indomethacin-antihistamine combination for gastric ulceration control
[NASA-CASE-ARC-11118-1] c52 N78-11692

ULLAGE

Radiation source and detection system for measuring amount of liquid inside tanks independently of liquid configuration
[NASA-CASE-HSC-12280] c27 N71-16348

ULTRAHIGH FREQUENCIES

Turnstile and flared cone UHF antenna
[NASA-CASE-LAR-10970-1] c33 N76-14372
Swept group delay measurement
[NASA-CASE-NFO-13909-1] c33 N77-17358

ULTRAHIGH VACUUM

Solid lubricant applied to porous roller bearings prior to use in ultrahigh vacuum
[NASA-CASE-XLE-09527] c15 N71-17688
Calibration of vacuum gauges for measuring total and partial pressures in ultrahigh vacuum region
[NASA-CASE-XGS-07752] c14 N73-30390
Ultrahigh vacuum gauge with two collector electrodes
[NASA-CASE-LAR-02743] c14 N73-32324
In situ transfer standard for ultrahigh vacuum gage calibration
[NASA-CASE-LAR-10862-1] c35 N74-15092

ULTRASONIC AGITATION

Development of ultrasonic radiation equipment for removing material from host surface and vacuum apparatus for recovery of material
[NASA-CASE-NFO-11213] c15 N73-20514

ULTRASONIC RADIATION

Ultrasonic biomedical measuring and recording apparatus --- for recording motion of internal organs such as heart valves
[NASA-CASE-ARC-10597-1] c52 N74-20726
Biomedical ultrasonoscope
[NASA-CASE-ARC-10994-1] c52 N76-33835
EKG and ultrasonoscope display
[NASA-CASE-ARC-10994-2] c52 N77-15619

ULTRASONIC TESTS

Ultrasonic scanner for radial and flat panels
[NASA-CASE-HFS-20335-1] c35 N74-10415
Ultrasonic scanning system for in-place inspection of brazed tube joints
[NASA-CASE-HFS-20767-1] c38 N74-15130
Method and apparatus for nondestructive testing --- using high frequency arc discharges
[NASA-CASE-HFS-21233-1] c38 N74-15395
A miniature implantable ultrasonic echosonometer
[NASA-CASE-ARC-11035-1] c52 N77-15621
CW ultrasonic bolt tensioning monitor
[NASA-CASE-LAR-12016-1] c39 N78-15512

ULTRASONIC WAVE TRANSDUCERS

Development of ultrasonic radiation equipment for removing material from host surface and vacuum apparatus for recovery of material
[NASA-CASE-NFO-11213] c15 N73-20514
Ultrasonic bone densitometer
[NASA-CASE-HFS-20994-1] c35 N75-12271
Reference apparatus for medical ultrasonic transducer
[NASA-CASE-ARC-10753-1] c54 N75-27760

- Ultrasonic calibration device --- for producing changes in acoustic attenuation and phase velocity
[NASA-CASE-LAR-11435-1] c35 N76-15432
- ULTRASONIC WELDING**
Ultrasonically bonded valve assembly
[NASA-CASE-NPO-13360-1] c37 N75-25185
- ULTRASONICS**
Ultrasonic wrench for applying vibratory energy to mechanical fasteners
[NASA-CASE-MFS-20586] c15 N71-17686
- ULTRAVIOLET FILTERS**
Ultraviolet filter of thorium fluoride and cryolite on quartz base
[NASA-CASE-XNP-02340] c23 N69-24332
Development of ultraviolet resonance lamp with improved transmission of radiation
[NASA-CASE-ARC-10030] c09 N71-12521
- ULTRAVIOLET RADIATION**
Ultraviolet radiation resistant alkali-metal silicate coatings for temperature control of spacecraft
[NASA-CASE-IGS-04119] c18 N69-39979
Development of ultraviolet resonance lamp with improved transmission of radiation
[NASA-CASE-ARC-10030] c09 N71-12521
Gas leak detection in evacuated systems using ultraviolet radiation probe
[NASA-CASE-ERC-10034] c15 N71-24896
Phototropic composition of matter with sensitivity to ultraviolet light and usable for producing positive photographic images
[NASA-CASE-IGS-03736] c14 N72-22443
Transmitting and reflecting diffuser --- for ultraviolet light
[NASA-CASE-LAR-10385-2] c70 N74-13436
Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-1] c27 N74-21156
Light shield and cooling apparatus --- high intensity ultraviolet lamp
[NASA-CASE-LAR-10089-1] c34 N74-23066
Flame detector operable in presence of proton radiation
[NASA-CASE-MFS-21577-1] c19 N74-29410
Method and apparatus for generating coherent radiation in the ultra-violet region and above by use of distributed feedback
[NASA-CASE-NPO-13346-1] c36 N76-29575
Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-2] c27 N76-32315
- ULTRAVIOLET REFLECTION**
Composition and production method of alkali metal silicate paint with ultraviolet reflection properties
[NASA-CASE-IGS-04799] c18 N71-24183
Ultraviolet light reflective coating
[NASA-CASE-GSC-11786-1] c24 N76-24363
Transmitting and reflecting diffuser --- using ultraviolet grade fused silica coatings
[NASA-CASE-LAR-10385-3] c74 N78-15879
- ULTRAVIOLET SPECTRA**
Ultraviolet chromatographic detector for quantitative and qualitative analysis of compounds
[NASA-CASE-HQN-10756-1] c14 N72-25428
- ULTRAVIOLET SPECTROMETERS**
Concave grating spectrometer for use in near and vacuum ultraviolet regions
[NASA-CASE-XGS-01036] c14 N70-40003
Telespectrograph for analyzing upper atmosphere by tracking bodies reentering atmosphere at high velocities
[NASA-CASE-XLA-03273] c14 N71-18699
- UMBILICAL CONNECTORS**
Umbilical separator for rockets
[NASA-CASE-XNP-00425] c11 N70-38202
Remotely actuated quick disconnect mechanism for umbilical cables
[NASA-CASE-XLA-00711] c03 N71-12258
Remotely actuated quick disconnect for tubular umbilical conduits used to transfer fluids from ground to rocket vehicle
[NASA-CASE-XIA-01396] c03 N71-12259
Internal and external serpentine devices for performing physical operations around orbital space stations
[NASA-CASE-XNP-05344] c31 N71-16345
- Breakaway multiwire electrical cable connector with particular application for umbilical type cables
[NASA-CASE-NPO-11140] c15 N72-17455
Gas operated quick disconnect coupling for umbilical connectors
[NASA-CASE-NPO-11202] c15 N72-25450
Deployable flexible tunnel
[NASA-CASE-MFS-22636-1] c37 N76-22540
- UMBILICAL TOWERS**
Emergency escape cabin system for launch towers
[NASA-CASE-IXS-02342] c05 N71-11199
- UNDERWATER ENGINEERING**
Ejectable underwater sound source recovery assembly
[NASA-CASE-LAR-10595-1] c35 N74-16135
- UNDERWATER TESTS**
Pressure regulator for space suit worn underwater to simulate space environment for testing and experimentation
[NASA-CASE-MFS-20332] c05 N72-20097
Underwater space suit pressure control regulator
[NASA-CASE-MFS-20332-2] c05 N73-25125
- UNIFORM FLOW**
Wind tunnel flow generation section
[NASA-CASE-ARC-10710-1] c09 N75-12969
- UNLOADING**
Bootstrap unloading circuits for sampling transducer voltage sources without drawing current
[NASA-CASE-XNP-09768] c09 N71-12516
- UNMANNED SPACECRAFT**
Device which separates and screens particles of soil samples for vidicon viewing in vacuum and reduced gravity environments
[NASA-CASE-XNP-09770-3] c11 N71-27036
- UPPER ATMOSPHERE**
Telespectrograph for analyzing upper atmosphere by tracking bodies reentering atmosphere at high velocities
[NASA-CASE-XLA-03273] c14 N71-18699
Development and operation of apparatus for sampling particulates in gases in upper atmosphere
[NASA-CASE-HQN-10037-1] c14 N73-27376
Rocket having barium release system to create ion clouds in the upper atmosphere
[NASA-CASE-LAR-10670-2] c15 N74-27360
- URANIUM 235**
Isotope separation using metallic vapor lasers
[NASA-CASE-NFO-13550-1] c36 N77-26477
- UREAS**
A reverse osmosis membrane of high urea rejection properties
[NASA-CASE-ARC-10980-1] c27 N77-18265
Aldehyde-containing urea-absorbing polysaccharides
[NASA-CASE-NFO-13620-1] c27 N77-30236
- URINALYSIS**
Automated fluid chemical analyzer for microchemical analysis of small quantities of liquids by use of selected reagents and analyzer units
[NASA-CASE-XNP-09451] c06 N71-26754
Enzymatic luminescent bioassay method for determining bacterial levels in urine
[NASA-CASE-GSC-11092-2] c04 N73-27052
Automatic device for assaying urine on bacterial adenosine triphosphate content
[NASA-CASE-GSC-11169-2] c05 N73-32011
- URINATION**
Open type urine receptacle with tubular housing
[NASA-CASE-HSC-12324-1] c05 N72-22093
- URINE**
Determination of antimicrobial susceptibilities of infected urines without isolation
[NASA-CASE-GSC-12046-1] c52 N77-26797
- UTERUS**
A cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer
[NASA-CASE-GSC-12081-2] c52 N77-26796

V

V GROOVES

- Vee-notching device --- with adjustable carriage
[NASA-CASE-MFS-20730-1] c39 N74-13131

VACANCIES (CRYSTAL DEFECTS)

- Bi-metallic junctions

- [NASA-CASE-LEW-11573-1] c26 N77-28265
- VACUUM**
- Hole mobility of deposited semiconductor films in vacuum utilizing thermal gradient [NASA-CASE-XKS-04614] c15 N69-21460
- Operating properties of superconducting magnet in vacuum environment [NASA-CASE-INP-06503] c23 N71-29049
- VACUUM APPARATUS**
- Full-type vacuum microbalance for measuring minute mechanical displacements [NASA-CASE-XAC-00472] c15 N70-40180
- Sealing evacuation port and evacuating vacuum container such as space jackets [NASA-CASE-XMF-03290] c15 N71-23256
- Apparatus for determining volatile condensable material present in polymeric products [NASA-CASE-XMP-09699] c06 N71-24607
- Oil trap for preventing diffusion pump backstreaming into evacuated system [NASA-CASE-GSC-10518-1] c15 N72-22489
- Inductance device with vacuum insulation and materials of low gas entrapping capability [NASA-CASE-LEW-10330-1] c09 N72-27226
- Development of apparatus for producing metal powder particles of controlled size [NASA-CASE-XLE-06461-2] c17 N72-28535
- Portable vacuum probe surface sampler for sampling large surface areas with relatively light loading densities of microorganisms [NASA-CASE-LAR-10623-1] c14 N73-30395
- Servo valve [NASA-CASE-LAR-11643-1] c37 N75-13268
- Vacuum leak detector [NASA-CASE-LAR-11237-1] c35 N75-19612
- Apparatus for positioning modular components on a vertical or overhead surface [NASA-CASE-LAR-11465-1] c37 N76-21554
- VACUUM CHAMBERS**
- High-vacuum condenser tank for testing ion rocket engines [NASA-CASE-XLE-00168] c11 N70-33278
- Portable electron beam welding chamber [NASA-CASE-LEW-11531] c15 N71-14932
- Space environmental work simulator with portions of space suit mounted to vacuum chamber wall [NASA-CASE-XMF-07488] c11 N71-18773
- Ionization control system design for monitoring separately located ion gage pressures on vacuum chambers [NASA-CASE-XLE-00787] c14 N71-21090
- Coherent light beam device and method for measuring gas density in vacuum chambers [NASA-CASE-XER-11203] c14 N71-28994
- Transferring liquid nitrogen through vacuum chamber to cryopanel [NASA-CASE-LAR-10031] c15 N72-22484
- Vacuum chamber with scale model of rocket engine base area of space vehicle [NASA-CASE-MFS-20620] c11 N72-27262
- Packless valve for use with evacuation chamber with adapter for attachment to vacuum line and vacuum pump [NASA-CASE-LAR-10061-1] c15 N72-31483
- Apparatus for analyzing gas samples in containers including vacuum chamber, mass spectrometer, and gas chromatography [NASA-CASE-GSC-10903-1] c14 N73-12444
- Design and development of test stand system for supporting test items in vacuum chamber [NASA-CASE-MFS-21362] c11 N73-20267
- Atomic hydrogen storage method and apparatus --- cryotrapping and magnetic field strength [NASA-CASE-LEW-12081-2] c72 N78-19907
- VACUUM DEPOSITION**
- Deposition method for epitaxial beta SiC films having high degree of crystallographic perfection [NASA-CASE-ERC-10120] c26 N69-33482
- Describing apparatus used in vacuum deposition of thin film inductive windings for spacecraft microcircuitry [NASA-CASE-XMF-01667] c15 N71-17647
- Spatter proof evaporant source design for use in vacuum deposition of solid thin films on substrates [NASA-CASE-XMF-06065] c15 N71-20395
- Device for high vacuum film deposition with electromagnetic ion steering [NASA-CASE-WFO-10331] c09 N71-26701
- Preparation of dielectric coatings of variable dielectric constant by plasma polymerization [NASA-CASE-ARC-10892-2] c27 N77-17245
- VACUUM EFFECTS**
- Variable contour securing system [NASA-CASE-MSC-16270-1] c35 N78-10434
- VACUUM FURNACES**
- Apparatus for inserting and removing specimens from high temperature vacuum furnaces [NASA-CASE-LAR-10841-1] c31 N74-27900
- VACUUM GAGES**
- Simulating operation of thermopile vacuum gage tube at high and low pressures [NASA-CASE-XLA-02758] c14 N71-18481
- Calibration of vacuum gauges for measuring total and partial pressures in ultrahigh vacuum region [NASA-CASE-XGS-07752] c14 N73-30390
- Ionization gage for measuring ultrahigh vacuum levels [NASA-CASE-XIA-05087] c14 N73-30391
- In situ transfer standard for ultrahigh vacuum gage calibration [NASA-CASE-LAR-10862-1] c35 N74-15092
- VACUUM MELTING**
- Electric furnace for vacuum and zero gravity melting of high melting point materials during earth orbit [NASA-CASE-MFS-20710] c11 N72-23215
- VACUUM SYSTEMS**
- Shrink-fit vacuum system gas valve [NASA-CASE-XGS-00587] c15 N76-35087
- Leakproof soft metal seal for use in very high vacuum systems operating at cryogenic temperatures [NASA-CASE-XGS-02441] c15 N70-41629
- Describing hot filament type Bayard-Alpert ionization gage with ion collector buried or removed from grid structure [NASA-CASE-XLA-07424] c14 N71-18482
- Describing sorption vacuum trap having housing with group of reentrant wall portions projecting into internal gas-permeous container filled with gas and vapor sorbent material [NASA-CASE-XER-09519] c14 N71-18483
- Vacuum leak detector [NASA-CASE-LAR-11237-1] c35 N75-19612
- VACUUM TUBES**
- Integrated structure vacuum tube [NASA-CASE-ARC-10445-1] c31 N76-31365
- VALVE**
- High impact pressure regulator having minimum number of lightweight movable elements [NASA-CASE-WFO-10175] c14 N71-18625
- VALVES**
- Actuator using compressed gas as driving force to control valve handling large liquid flows [NASA-CASE-XHQ-01208] c15 N76-35409
- Two component valve assembly for cryogenic liquid transfer regulation [NASA-CASE-XLE-00397] c15 N70-36492
- High pressure four-way valve with O ring adapted to pass across inlet port [NASA-CASE-XMP-00214] c15 N70-36908
- Reinforcing beam system for highly flexible diaphragms in valves or pressure switches [NASA-CASE-XMF-01962] c32 N70-41370
- Multiple vortex amplifier system as fluid valve [NASA-CASE-XMF-04709] c15 N71-15609
- Throttle valve for regulating fluid flow volume [NASA-CASE-XMP-09698] c15 N71-18580
- Development and characteristics of high pressure control valve [NASA-CASE-MSC-11010] c15 N71-19485
- Valve seat with resilient support ring for venting valves subjected to high pressure sealing loads [NASA-CASE-XKS-02582] c15 N71-21234
- Positive locking check valve for stopping reversed flow [NASA-CASE-XMS-09310] c15 N71-22706
- Valve assembly for controlling simultaneously more than one fluid flow, and having stable qualities under loads [NASA-CASE-XMS-05890] c09 N71-23191
- Segmented sealing surface in valve seat [NASA-CASE-WFO-10606] c15 N72-25451

Packless valve for use with evacuation chamber with adapter for attachment to vacuum line and vacuum pump
[NASA-CASE-LAR-10061-1] c15 N72-31483

Flow control valve --- for high temperature fluids
[NASA-CASE-NPO-11951-1] c37 N74-21065

Airlock
[NASA-CASE-MFS-20922-1] c18 N74-22136

Reciprocating engines
[NASA-CASE-MSC-16239-1] c37 N78-11399

VANES
Design and characteristics of device for sensing solar radiation and providing spacecraft attitude control to maintain direction with respect to incident radiation
[NASA-CASE-INP-05535] c14 N71-23040

Rotary vane attenuator with two stators and intermediary rotor, using resistive and orthogonally disposed cards
[NASA-CASE-NPO-11418-1] c14 N73-13420

VAPOR DEPOSITION
Deposition method for epitaxial beta SiC films having high degree of crystallographic perfection
[NASA-CASE-ERC-10120] c26 N69-33482

Device for producing high purity silicon carbide on carbon base by hydrogen reduction of silicon tetrachloride
[NASA-CASE-XLA-02057] c26 N70-40015

Water content in vapor deposition atmosphere for forming n-type and p-type junctions of zinc doped gallium arsenide
[NASA-CASE-INP-01961] c26 N71-29156

Vapor deposition method for forming metallized tungsten contacts on silicon substrates
[NASA-CASE-GSC-10695-1] c09 N72-25259

Means of vapor deposition using electric current and evaporator filament
[NASA-CASE-LAR-10541-1] c15 N72-32487

Deposition of alloy films --- on irregularly shaped metal object
[NASA-CASE-LEW-11262-1] c27 N74-13270

System for depositing thin films
[NASA-CASE-MFS-20775-1] c31 N75-12161

Vapor deposition apparatus --- semiconductors and gallium arsenides
[NASA-CASE-BQN-00462] c25 N75-29192

VAPOR PHASES
Method and feed system for separating and orienting liquid and vapor phases of liquid propellants in zero gravity environment
[NASA-CASE-XLE-01182] c27 N71-15635

Gallium arsenide solar cell preparation by surface deposition of cuprous iodide on thin n-type polycrystalline layers and heating in iodine vapor
[NASA-CASE-INP-01960] c09 N71-23027

Mixed liquid and vapor phase analyzer design with thermocouples for relative heat transfer measurement
[NASA-CASE-NPO-10691] c14 N71-26199

Electronic recording system for spatial mass distribution of liquid rocket propellant droplets or vapors ejected from high velocity nozzles
[NASA-CASE-NPO-10185] c10 N71-26339

VAPOR PRESSURE
Fuel tank pressure-relief device for venting cryogenic liquid vapors through tubes with porous plug
[NASA-CASE-XLE-00288] c15 N70-34247

Vapor-liquid separator design with vapor driven pump for separated liquid pumping for application in propellant transfer
[NASA-CASE-INP-00442] c15 N71-23023

VAPOR TRAPS
Describing sorption vacuum trap having housing with group of reentrant wall portions projecting into internal gas-permeous container filled with gas and vapor sorbent material
[NASA-CASE-XER-09519] c14 N71-18483

VAPORIZERS
Vapor generating boiler system for turbine motor
[NASA-CASE-XLE-00785] c33 N71-16104

Liquid hydrogen flash vaporizer --- for aircraft fuel systems
[NASA-CASE-LAR-12159-1] c31 N78-11260

VAPORIZING

Apparatus and process for volumetrically dispensing reagent quantities of volatile chemicals for small batch reactions
[NASA-CASE-NPO-10070] c15 N71-27372

Development of method for controlling vapor content of gas
[NASA-CASE-NPO-10633] c03 N72-28025

VARIABLE DIODE CIRCUITS
Phase modulator with tuned variable length electrical lines including coupling and varactor diode circuits
[NASA-CASE-MSC-13201-1] c07 N71-28429

VARIABLE DIODES
Varactor microwave frequency mixing circuit
[NASA-CASE-XGS-02171] c09 N69-24324

Multiple varactor for generating high frequencies with high power and high conversion efficiency
[NASA-CASE-INP-04958-1] c10 N71-26414

Millimeter wave pumped parametric amplifier
[NASA-CASE-GSC-11617-1] c33 N74-32660

VARIABLE CYCLE ENGINES
Dual cycle aircraft turbine engine
[NASA-CASE-LAR-11310-1] c07 N77-28118

Variable cycle gas turbine engines
[NASA-CASE-LEW-12916-1] c37 N78-17384

VARIABLE GEOMETRY STRUCTURES
Aerospace configuration with low and high aspect ratio variability for high and low speed flight
[NASA-CASE-XLA-00142] c02 N70-33286

Variable geometry wind tunnel for testing aircraft models at subsonic speeds
[NASA-CASE-XLA-07430] c11 N72-22246

VARIABLE PITCH PROPELLERS
Dual output variable pitch turbofan actuation system
[NASA-CASE-LEW-12419-1] c07 N77-14025

Impact absorbing blade mounts for variable pitch blades
[NASA-CASE-LEW-12313-1] c37 N78-10468

VARIABLE SWEEP WINGS
Variable sweep wing configuration for supersonic aircraft
[NASA-CASE-XLA-00230] c02 N70-33255

Variable aspect ratio and variable sweep delta wing planforms for supersonic aircraft
[NASA-CASE-XLA-00221] c02 N70-33266

Supersonic aircraft configuration providing for variable aspect ratio and variable sweep wings
[NASA-CASE-XLA-00166] c02 N70-34178

Supersonic aircraft variable sweep wing planform for varying aspect ratio
[NASA-CASE-XLA-00350] c02 N70-38011

Development and characteristics of variable sweep wing control system for supersonic aircraft
[NASA-CASE-XLA-03659] c02 N71-11041

Design of dual fuselage aircraft with pivoting wing and horizontal stabilizer to permit yawing of wing in flight for high speed operation
[NASA-CASE-ARC-10470-1] c02 N73-26005

VARIABLE THRUST
Variable thrust ion engine using thermal decomposition of solid cesium compound to produce propulsive vapor
[NASA-CASE-INP-00923] c28 N70-36802

Continuous variation of propellant flow and thrust by application of liquid foam flow theory to injection orifice
[NASA-CASE-XLE-00177] c28 N70-40367

Variable thrust nozzle for quiet turbofan engine and method of operating same
[NASA-CASE-LEW-12317-1] c07 N78-17055

VARIATIONS
Gearing system for eliminating backlash and filtering input torque fluctuations from high inertia load
[NASA-CASE-XGS-04227] c15 N71-21744

VECTOR ANALYSIS
Development of two force component measuring device
[NASA-CASE-XAC-04886-1] c14 N71-20439

VECTOCARDIOGRAPHY
Electromedical garment, applying vectocardiologic type electrodes to human torsos for data recording during physical activity

- [NASA-CASE-XPR-10856] c05 N71-11189
- VEGETATION GROWTH**
- Rotary plant growth accelerating apparatus --- weightlessness
- [NASA-CASE-ARC-10722-1] c51 N75-25503
- Remote sensing of vegetation and soil using microwave ellipsometry
- [NASA-CASE-GSC-11976-1] c43 N78-10529
- VEHICLE WHEELS**
- Resilient vehicle wheel for lunar surface travel
- [NASA-CASE-MFS-20400] c31 N71-18611
- Resilient wheel design with woven wire tire and abrasive treads for lunar surface vehicles
- [NASA-CASE-MFS-13929] c15 N71-27091
- Omnidirectional wheel
- [NASA-CASE-MFS-21309-1] c37 N74-18125
- Two speed drive system --- mechanical device for changing speed on rotating vehicle wheel
- [NASA-CASE-MFS-20645-1] c37 N74-23070
- Fifth wheel
- [NASA-CASE-FRC-10081-1] c37 N77-14477
- VEHICLES**
- Magnetic suspension and pointing system
- [NASA-CASE-LAR-11889-2] c35 N78-10433
- VELOCITY**
- Velocity limiting safety system for motor driven research vehicle
- [NASA-CASE-XLA-07473] c15 N71-24895
- VELOCITY MEASUREMENT**
- Particle detector for measuring micrometeoroid velocity in space
- [NASA-CASE-XLA-00495] c14 N70-41332
- Superconductive accelerometer employing variable force principle to determine acceleration of bodies
- [NASA-CASE-XHF-01099] c14 N71-15969
- Device for determining acceleration of gravity by interferometric measurement of travel of falling body
- [NASA-CASE-XHF-05844] c14 N71-17587
- Describing laser Doppler velocimeter for measuring mean velocity and turbulence of fluid flow
- [NASA-CASE-MFS-20386] c21 N71-19212
- Momentum-velocity analyzer for measuring minute space particles
- [NASA-CASE-IHS-04201] c14 N71-22990
- Development of combined velocimeter and accelerometer based on color changes in liquid crystalline material subjected to shear stresses
- [NASA-CASE-ERC-10292] c14 N72-25410
- Instrument for measuring magnitude and direction of flow velocity in flow field
- [NASA-CASE-LAR-10855-1] c14 N73-13415
- Doppler shift system --- system for measuring velocities of radiating particles
- [NASA-CASE-HQN-10740-1] c72 N74-19310
- Velocity measurement system
- [NASA-CASE-MFS-23363-1] c35 N76-33469
- Tachometer
- [NASA-CASE-MFS-23175-1] c35 N77-30436
- Fluid velocity measuring device
- [NASA-CASE-LAR-11729-1] c34 N78-15438
- VELOCITY MODULATION**
- Selector mechanism for mechanical separation and discrimination of high velocity molecular particles
- [NASA-CASE-XLE-01533] c11 N71-10777
- Describing device for velocity control of electromechanical drive mechanism of scanning mirror of interferometer
- [NASA-CASE-IGS-03532] c14 N71-17627
- VENTILATION**
- Protective garment ventilation system
- [NASA-CASE-IHS-04928] c54 N78-17679
- VENTILATORS**
- Heat sterilizable patient ventilator
- [NASA-CASE-NPO-13313-1] c54 N75-27761
- VENTING**
- Fuel tank pressure-relief device for venting cryogenic liquid vapors through tubes with porous plug
- [NASA-CASE-XLE-00288] c15 N70-34247
- Venting device for liquid propellant storage tank using magnetic field to separate liquid and gaseous phases
- [NASA-CASE-XLE-01449] c15 N70-41646
- Valve seat with resilient support ring for venting valves subjected to high pressure
- sealing loads
- [NASA-CASE-XKS-02582] c15 N71-21234
- Venting device for pressurized space suit helmet to eliminate vomit expelled by crewmen
- [NASA-CASE-IHS-09652-1] c05 N71-26333
- Solid propellant rocket engine with venting system to control effective nozzle throat area
- [NASA-CASE-XHF-03282] c28 N72-20758
- VENUS (PLANET)**
- Space simulator with uniform test region radiation distribution, adapted to simulate Venus solar radiations
- [NASA-CASE-XHF-00459] c11 N70-38675
- VERTICAL FLIGHT**
- Aircraft indicator for pilot control of takeoff roll, climbout path and verticle flight path in poor visibility conditions
- [NASA-CASE-XLA-00487] c14 N70-40157
- VERTICAL LANDING**
- Vertically descending flight vehicle landing gear for rough terrain
- [NASA-CASE-XHF-01174] c02 N70-41589
- VERTICAL TAKEOFF AIRCRAFT**
- Mechanical stabilization system for VTOL aircraft
- [NASA-CASE-XLA-06339] c02 N71-13422
- Development of attitude control system for vertical takeoff aircraft using reaction nozzles displaced from various axes of aircraft
- [NASA-CASE-XAC-08972] c02 N71-20570
- VERY HIGH FREQUENCIES**
- VHF/UHF parasitic probe antenna for spacecraft communication
- [NASA-CASE-XKS-09340] c07 N71-24614
- VESTS**
- Lightweight life preserver without fastening devices
- [NASA-CASE-IHS-00864] c05 N70-36493
- VIBRATION**
- Three stage motion restraining mechanism for restraining and damping three dimensional vibrational movement of gimballed package during launch of spacecraft
- [NASA-CASE-GSC-10306-1] c15 N71-24694
- Vibration control of flexible bodies in steady accelerating environment
- [NASA-CASE-LAR-10106-1] c15 N71-27169
- VIBRATION DAMPING**
- Mercury filled pendulum damper for controlling bending vibration induced by wind effects
- [NASA-CASE-LAR-10274-1] c14 N71-17626
- Digital filter for reducing jitter in digital control systems
- [NASA-CASE-NPO-11088] c08 N71-29034
- Blade vibration damping pins for turbomachinery
- [NASA-CASE-XLE-00155] c28 N71-29154
- VIBRATION EFFECTS**
- Electromagnetic energy detection by thermal sensor with vibrating electrode
- [NASA-CASE-XAC-10768] c09 N71-18830
- Development of ultrasonic radiation equipment for removing material from host surface and vacuum apparatus for recovery of material
- [NASA-CASE-NPO-11213] c15 N73-20514
- Development of optical system for detecting defective components in rotating machinery with emphasis on bearing assemblies
- [NASA-CASE-KSC-10752-1] c15 N73-27407
- VIBRATION ISOLATORS**
- Shock and vibration damping device using temperature sensitive solid amorphous polymers
- [NASA-CASE-XAC-11225] c14 N69-27486
- Miniature vibration isolator utilizing elastic tubing material
- [NASA-CASE-XLA-01019] c15 N70-40156
- Vibration damping system operating in low vacuum environment for spacecraft mechanisms
- [NASA-CASE-IHS-01620] c23 N71-15673
- Hermetically sealed vibration damper design for use in gimbal assembly of spacecraft inertial guidance system
- [NASA-CASE-MSC-10959] c15 N71-26243
- Tuned damped vibration absorber for mass vibrating in more than one degree of freedom for use with wind tunnel models
- [NASA-CASE-LAR-10083-1] c15 N71-27006
- Vibration isolation system, using coaxial helical compression springs
- [NASA-CASE-NPO-11012] c15 N72-11391

- Thrust-isolating mounting --- characteristics of support for loads mounted in spacecraft
[NASA-CASE-NFS-21680-1] c18 N74-27397
- Shock absorbing mount for electrical components
[NASA-CASE-NFO-13253-1] c37 N75-18573
- Thermal insulation attaching means --- adhesive bonding of felt vibration isolators under ceramic tiles
[NASA-CASE-MSC-12619-2] c16 N77-31237
- Shock isolator for operating a diode laser and closed-cycle refrigerator
[NASA-CASE-GSC-12297-1] c37 N78-19515
- VIBRATION MEASUREMENT**
Development of system for measuring damping characteristics of structure or system subjected to random forces or influences
[NASA-CASE-ARC-10154-1] c14 N72-22440
- Method and apparatus for vibration analysis utilizing the Mossbauer effect
[NASA-CASE-XMP-05882] c35 N75-27329
- VIBRATION METERS**
Fiber optic transducers for monitoring and analysis of vibration in aerospace vehicles and onboard equipment
[NASA-CASE-XMP-02433] c14 N71-10616
- VIBRATION MODE**
Function generators for producing complex vibration mode patterns used to identify vibration mode data
[NASA-CASE-LAR-10310-1] c10 N73-20253
- VIBRATION SIMULATORS**
Equipment for vibration testing of assemblies, components, and other articles
[NASA-CASE-GSC-11302-1] c14 N73-13416
- VIBRATION TESTS**
Electronic detection system for peak acceleration limits in vibrational testing of spacecraft components
[NASA-CASE-NFO-10556] c14 N71-27185
- Fixture for supporting articles during vibration tests comprising integral annular unit
[NASA-CASE-NFS-20523] c14 N72-27412
- Equipment for vibration testing of assemblies, components, and other articles
[NASA-CASE-GSC-11302-1] c14 N73-13416
- Multiaxial vibration device for making vibration tests along orthogonal axes of test specimen
[NASA-CASE-NFS-20242] c14 N73-19421
- VIBRATIONAL SPECTRA**
Tuned damped vibration absorber for mass vibrating in more than one degree of freedom for use with wind tunnel models
[NASA-CASE-LAR-10083-1] c15 N71-27006
- VIDEO COMMUNICATION**
Circuitry for generating sync signals in FM communication systems including video information
[NASA-CASE-XNP-10830] c07 N71-11281
- Monitoring circuit design for sampling circuit control and reduction of time-bandwidth in video communication systems
[NASA-CASE-XNP-02791] c07 N71-23026
- Teletypewriter video communication system and apparatus
[NASA-CASE-XNP-06611] c07 N71-26102
- Sampling video compression system
[NASA-CASE-ARC-10984-1] c32 N77-24328
- VIDEO DATA**
TV camera output signal control system for digital spacecraft communication
[NASA-CASE-XNP-01472] c14 N70-41807
- Transient video signal tape recorder with expanded playback
[NASA-CASE-ARC-10003-1] c09 N71-25866
- Restoration and improvement of demodulated facsimile video signals
[NASA-CASE-GSC-10185-1] c07 N72-12081
- Dual digital video switcher
[NASA-CASE-KSC-10782-1] c33 N75-30431
- VIDEO EQUIPMENT**
Video signal processing system for sampling video brightness levels
[NASA-CASE-NFO-10140] c07 N71-24742
- Video sync processor with phase locked system
[NASA-CASE-KSC-10002] c10 N71-25865
- Teletypewriter video communication system and apparatus
[NASA-CASE-XNP-06611] c07 N71-26102
- Video signal enhancement of signal component representing brightness of scene element in low contrast
[NASA-CASE-NFO-10343] c07 N71-27341
- Circuitry for high input impedance video processor with high noise immunity
[NASA-CASE-NFO-10199] c09 N72-17156
- Electronic video editor for switching video input signals to common output channel
[NASA-CASE-KSC-10003] c10 N73-13235
- Video tape recorder with scan conversion playback for color television signals
[NASA-CASE-NFO-10166-1] c07 N73-22076
- Scan converting video tape recorder
[NASA-CASE-NFO-10166-2] c35 N76-16391
- Stack plume visualization system
[NASA-CASE-LAR-11675-1] c45 N76-17656
- VIDICONS**
Operation of vidicon tube for scanning spatial charge density pattern
[NASA-CASE-XNP-06028] c09 N71-23189
- Device which separates and screens particles of soil samples for vidicon viewing in vacuum and reduced gravity environments
[NASA-CASE-XNP-09770-3] c11 N71-27036
- VINYL POLYMERS**
Method of producing output voltage from photovoltaic cell using poly-N-vinyl carbazole complexed with iodine
[NASA-CASE-NFO-10373] c03 N71-18698
- Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-1] c27 N76-28425
- VINYLDIENE**
Preparation of dicyanoacetylene and vinylidene copolymers using organic compounds
[NASA-CASE-XNP-03250] c06 N71-23500
- VIRUSES**
Water system virus detection
[NASA-CASE-MSC-16098-1] c51 N77-24755
- VISCOELASTICITY**
Automated ball rebound resilience test equipment for determining viscoelastic properties of polymers
[NASA-CASE-XIA-08254] c14 N71-26161
- Development and characteristics of parallel plate viscometer for determination of absolute viscosity of liquids and viscoelastic materials
[NASA-CASE-NFO-11387] c14 N73-14429
- Shock absorbing mount for electrical components
[NASA-CASE-NFO-13253-1] c37 N75-18573
- VISCOMETERS**
Describing instrument capable of measuring true shear viscosity of liquids and viscoelastic materials
[NASA-CASE-XNP-09462] c14 N71-17584
- Development and characteristics of parallel plate viscometer for determination of absolute viscosity of liquids and viscoelastic materials
[NASA-CASE-NFO-11387] c14 N73-14429
- VISCOSITY**
Low density and low viscosity magnetic propellant for use under zero gravity conditions
[NASA-CASE-XIE-01512] c12 N70-40124
- VISCOUS DAMPING**
Shock and vibration damping device using temperature sensitive solid amorphous polymers
[NASA-CASE-XAC-11225] c14 N69-27486
- Design and operation of viscous pendulum damper
[NASA-CASE-XIA-02079] c12 N71-16894
- Mercury filled pendulum damper for controlling bending vibration induced by wind effects
[NASA-CASE-LAR-10274-1] c14 N71-17626
- VISIBILITY**
Controlled visibility device for simulating poor visibility conditions in training pilots in instrument landing and flight procedures
[NASA-CASE-IPR-04147] c11 N71-10748
- VISORS**
Anti-fog composition --- for prevention of fogging on surfaces such as space helmet visors and windshields
[NASA-CASE-MSC-13530-2] c23 N75-14834
- VISUAL ACUITY**
Multiparameter vision testing apparatus
[NASA-CASE-MSC-13601-2] c54 N75-27759
- VISUAL CONTROL**
Visual target luminaires for retrofire attitude control

- [NASA-CASE-XMS-12158-1] c31 N69-27499
- VISUAL FIELDS**
- Automated visual sensitivity tester for determining visual field sensitivity and blind spot size
- [NASA-CASE-ARC-10329-1] c05 N73-26072
- Visual examination apparatus
- [NASA-CASE-RE-ARC-10329-2] c52 N76-30793
- Binocular device for displaying numerical information in field of view
- [NASA-CASE-LAR-11782-1] c74 N77-20882
- VISUAL OBSERVATION**
- Automatic visual inspection system for microelectronics
- [NASA-CASE-NPO-13282] c38 N78-17396
- VISUAL PERCEPTION**
- High pressure liquid flow sight assembly for wide temperature range applications including cryogenic fluids
- [NASA-CASE-XLE-02998] c14 N70-42074
- VISUAL STIMULI**
- Reaction tester for testing reaction to light stimuli
- [NASA-CASE-HSC-13604-1] c05 N73-13114
- VOICE COMMUNICATION**
- Position locating system for remote aircraft using voice communication and digital signals
- [NASA-CASE-GSC-10087-2] c21 N71-13958
- Earth satellite relay station for frequency multiplexed voice transmission
- [NASA-CASE-GSC-10118-1] c07 N71-24621
- Voice operated receiving and transmitting system for use in protective suits
- [NASA-CASE-KSC-10164] c07 N71-33108
- Technique for recovery of voice data from heat damaged magnetic tape
- [NASA-CASE-HSC-14219-1] c32 N74-27612
- Filtering device --- removing electromagnetic noise from voice communication signals
- [NASA-CASE-MFS-22729-1] c32 N76-21366
- Real time analysis of voiced sounds
- [NASA-CASE-NPO-13465-1] c32 N76-31372
- VOICE DATA PROCESSING**
- Digital communication system
- [NASA-CASE-HSC-13912-1] c32 N74-30524
- VOLATILITY**
- Apparatus for determining volatile condensable material present in polymeric products
- [NASA-CASE-XNP-09699] c06 N71-24607
- VOLT-AMPERE CHARACTERISTICS**
- Simulating voltage-current characteristic curves of solar cell panel with different operational parameters
- [NASA-CASE-XMS-01554] c10 N71-10578
- The dc-to-dc converters employing staggered-phase power switches with two-loop control
- [NASA-CASE-NPO-13512-1] c33 N77-10428
- Cable fault locator
- [NASA-CASE-KSC-10899-1] c33 N77-28394
- VOLTAGE AMPLIFIERS**
- Increasing power conversion efficiency of electronic amplifiers by power supply switching
- [NASA-CASE-XMS-00945] c09 N71-10798
- Bootstrap unloading circuits for sampling transducer voltage sources without drawing current
- [NASA-CASE-XNP-09768] c09 N71-12516
- RC networks with voltage amplifier, RC input circuit, and positive feedback
- [NASA-CASE-ARC-10020] c10 N72-17172
- Wide range analog to digital converter with variable gain amplifier
- [NASA-CASE-NPO-11018] c08 N72-21200
- Voltage feed through apparatus having reduced partial discharge
- [NASA-CASE-GSC-12347-1] c33 N78-17297
- VOLTAGE CONVERTERS (DC TO DC)**
- Regulated dc-to-dc converter for voltage step-up or step-down with input-output isolation
- [NASA-CASE-HQH-10792-1] c33 N74-11049
- The dc-to-dc converters employing staggered-phase power switches with two-loop control
- [NASA-CASE-NPO-13512-1] c33 N77-10428
- Inrush current limiter
- [NASA-CASE-GSC-11789-1] c33 N77-14333
- A regulated high efficiency, lightweight capacitor-diode multiplier DC to DC converter
- [NASA-CASE-XMS-12158-1] c31 N69-27499
- [NASA-CASE-LEW-12791-1] c33 N77-24385
- Phase substitution of spare converter for a failed one of parallel phase staggered converters
- [NASA-CASE-NPO-13812-1] c33 N77-30365
- VOLTAGE GENERATORS**
- Pulsed energy power system for application of combustible gases to turbine controlling ac voltage generator
- [NASA-CASE-HSC-13112] c03 N71-11057
- Biotelemetry apparatus with dual voltage generators for implanting in animals
- [NASA-CASE-IAC-05706] c05 N71-12342
- Transistorized circuit for producing multiple slope voltage sweep
- [NASA-CASE-XMS-03542] c09 N71-28926
- Inductive-capacitive loops as load insensitive power converters
- [NASA-CASE-HRC-10268] c09 N72-25252
- VOLTAGE REGULATORS**
- Regulated dc to dc converter
- [NASA-CASE-XGS-03429] c03 N69-21330
- Power control switching circuit using low voltage semiconductor controlled rectifiers for high voltage isolation
- [NASA-CASE-XNP-02713] c10 N69-39888
- Automatic measuring and recording of gain and zero drift characteristics of electronic amplifier
- [NASA-CASE-XMS-05562-1] c09 N69-39986
- Automatic control of voltage supply to direct current motor
- [NASA-CASE-XMS-04215-1] c09 N69-39987
- Design, development, and operating principles of power supply with starting circuit which is independent of voltage regulator
- [NASA-CASE-XMS-01991] c09 N71-21449
- High voltage divider system for attenuating high voltages to convenient levels suitable for introduction to measuring circuits
- [NASA-CASE-XLE-02008] c09 N71-21583
- Power supply with overload protection for series stage transistor
- [NASA-CASE-XMS-00913] c10 N71-23543
- Voltage controlled, variable frequency relaxation oscillator with MOSFET variable current feed
- [NASA-CASE-GSC-10022-1] c10 N71-25882
- Design and development of buck-boost voltage regulator circuit with additive or subtractive alternating current impressed on variable direct current source voltage
- [NASA-CASE-GSC-10735-1] c10 N71-26085
- Voltage range selection apparatus for sensing and applying voltages to electronic instruments without loading signal source
- [NASA-CASE-XMS-06497] c14 N71-26244
- Dissipative voltage regulator system for minimizing heat dissipation
- [NASA-CASE-GSC-10891-1] c10 N71-26626
- Power point tracker for maintaining optimal output voltage of power source
- [NASA-CASE-GSC-10376-1] c14 N71-27407
- Microwave power divider for providing variable output power to output waveguide in fixed waveguide system
- [NASA-CASE-NPO-11031] c07 N71-33606
- Relay controlled voltage switching unit for scanning circuitry of star tracker
- [NASA-CASE-NPO-11253] c09 N72-17157
- Switching type voltage regulator with relatively simple circuit arrangement
- [NASA-CASE-LEW-11005-1] c09 N72-21243
- Inductive-capacitive loops as load insensitive power converters
- [NASA-CASE-HRC-10268] c09 N72-25252
- Regulated dc-to-dc converter for voltage step-up or step-down with input-output isolation
- [NASA-CASE-HQH-10792-1] c33 N74-11049
- Overvoltage protection network
- [NASA-CASE-ARC-10197-1] c33 N74-17929
- Low distortion automatic phase control circuit --- voltage controlled phase shifter
- [NASA-CASE-MFS-21671-1] c33 N74-22885
- Voltage monitoring system
- [NASA-CASE-KSC-10736-1] c33 N75-19521
- A regulated high efficiency, lightweight capacitor-diode multiplier DC to DC converter
- [NASA-CASE-LEW-12791-1] c33 N77-24385

Transformer regulated self-stabilizing chopper
[NASA-CASE-IGS-09186] c33 N78-17295

VOLTHETERS
Voltage monitoring system
[NASA-CASE-KSC-10736-1] c33 N75-19521

VOLUETRIC ANALYSIS
Volumetric direct nuclear pumped laser
[NASA-CASE-LAR-12183-1] c36 N77-21424

VOMITING
Venting device for pressurized space suit helmet
to eliminate vomit expelled by crewmen
[NASA-CASE-XMS-09652-1] c05 N71-26333

VORTEX BREAKDOWN
Wingtip vortex dissipator for aircraft
[NASA-CASE-LAR-11645-1] c02 N77-10001

VORTEX GENERATORS
Multiple vortex amplifier system as fluid valve
[NASA-CASE-XMF-04709] c15 N71-15609

Smokestack mounted airfoil
[NASA-CASE-LAR-11669-1] c34 N76-13419

Vortex attenuation method --- for multi-engine
aircraft
[NASA-CASE-LAR-12034-1] c02 N77-22045

Vortex generator for controlling the dispersion
of effluents in a flowing liquid
[NASA-CASE-LAR-12045-1] c34 N77-24423

VORTICES
Vortex-lift roll-control device
[NASA-CASE-LAR-11868-2] c08 N77-31176

VULCANIZING
Method for compression molding of thermosetting
plastics utilizing a temperature gradient
across the plastic to cure the article
[NASA-CASE-LAR-10489-1] c31 N74-18124

W

WAFERS
Separation of semiconductor wafer into chips
bounded by scribe lines
[NASA-CASE-ERC-10138] c26 N71-14354

An improved method and apparatus for use in
examining the lattice of a semiconductor wafer
by X-ray diffraction
[NASA-CASE-MFS-23315-1] c76 N76-32029

WALKING
Drop foot corrective device
[NASA-CASE-LAR-12259-1] c54 N78-18762

WALL TEMPERATURE
Thermocouple apparatus for measuring wall
temperatures in regeneratively cooled rocket
engines having thin walled cooling passages
[NASA-CASE-XLE-05230-2] c14 N73-13417

Structural heat pipe --- for spacecraft wall
thermal insulation system
[NASA-CASE-GSC-11619-1] c34 N75-12222

Thermal control canister
[NASA-CASE-GSC-12253-1] c34 N78-13380

WALLS
Metal ribbon wrapped outer wall for
regeneratively cooled combustion chamber
[NASA-CASE-XLE-00164] c15 N70-36411

WARNING SYSTEMS
Alarm system design for monitoring one or more
relay circuits
[NASA-CASE-XMS-10984-1] c10 N71-19417

Unsaturating magnetic core transformer design
with warning signal for electrical power
processing equipment
[NASA-CASE-ERC-10125] c09 N71-24893

Electrical failure detector in solid rocket
propellant motor insulation against thermal
degradation by fuel grain
[NASA-CASE-XMF-03968] c14 N71-27186

Device for generating and controlling combustion
products for testing of fire detection system
[NASA-CASE-GSC-11095-1] c14 N72-10375

Vertically stacked collinear array of
independently fed omnidirectional antennas for
use in collision warning systems on commercial
aircraft
[NASA-CASE-LAR-10545-1] c09 N72-21244

Development and operating principles of
collision warning system for aircraft accident
prevention
[NASA-CASE-HQM-10703] c21 N73-13643

Pilot warning indicator system of intruder
aircraft
[NASA-CASE-ERC-10226-1] c14 N73-16483

Silent alarm system for multiple room facility or
school
[NASA-CASE-NPO-11307-1] c10 N73-30205

Development and characteristics of electronic
signalling system and data processing
equipment for warning systems to avoid midair
collisions between aircraft
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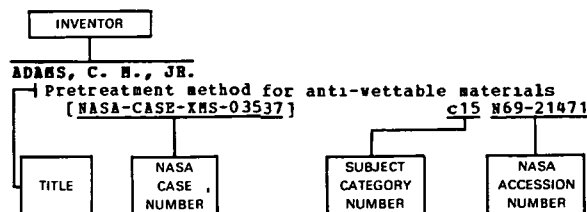
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ANDERSON, F. A.
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ANDERSON, K. F.
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ANDERSON, R. A.
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- BAILEY, F. J., JR.
Airplane take-off performance indicator Patent
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- BAILEY, G. A.
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- BAIDWIN, L. V.
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BARRINGTON, A. B.
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BECKMAN, P.
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BERGLUND, R. A.
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BERNSEN, B.
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BESWICK, A. G.
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BIRNIEK, T.
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BILBO, J. W.
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BILLINGHAM, J.
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BILLINGS, C. R.
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BILLINGSLEY, F. C.
Electro-optical scanning apparatus Patent
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BLACK, I. A.
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BLACK, J. H.
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Endless tape cartridge Patent
[NASA-CASE-XGS-00769] c14 N70-41647
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[NASA-CASE-GSC-10709-1] c28 N71-25213

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BUTMAN, S. A.
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BUZZARD, R. J.
Radial heat flux transducer
[NASA-CASE-NPO-10828] c33 N72-17948

BYERS, D. C.
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[NASA-CASE-MFS-14114] c33 N71-27862
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Elastomeric silazane polymers and process for preparing the same Patent
[NASA-CASE-XMP-04133] c06 N71-20717

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Thermally conductive polymers
[NASA-CASE-GSC-11304-1] c06 N72-21105

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CACOSSA, R. A.
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CAIRO, F. J.
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CALANDRO, J. M.
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[NASA-CASE-MFS-13929] c15 N71-27091

CALLAHAN, D. R.
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[NASA-CASE-XMF-06092] c07 N71-24612

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[NASA-CASE-XLE-00092] c15 N70-33264

CAMACHO, S. L.
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CAMERON, J. R.
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CAMP, D. W.
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[NASA-CASE-MFS-20916] c14 N73-25460

CAMP, R. L.
Automatic signal range selector for metering devices Patent
[NASA-CASE-XMS-06497] c14 N71-26244

CAMPBELL, B. A.
Epoxy-aziridine polymer product Patent
[NASA-CASE-NPO-10701] c06 N71-28620

CAMPBELL, C. C., JR.
Discrete local altitude sensing device Patent
[NASA-CASE-XMS-03792] c14 N70-41812

CAMPBELL, D. R.
Time division radio relay synchronizing system
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[NASA-CASE-GSC-10373-1] c07 N71-19773

CAMPBELL, F. D.
Radiant source tracker independent of
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[NASA-CASE-NPO-11686] c14 N73-25462

CAMPBELL, G. E.
Self-recording portable soil penetrometer
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CAMPBELL, G. W.
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[NASA-CASE-XFB-08403] c05 N71-11202

CAMPBELL, J. G.
Multislot film cooled pyrolytic graphite rocket
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CAMPBELL, R. A.
Redundant hydraulic control system for actuators
[NASA-CASE-MFS-20944] c15 N73-13466

CAMPBELL, R. B., JR.
Focused laser Doppler velocimeter
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CAMPBELL, T. G.
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[NASA-CASE-LAR-10163-1] c09 N72-25247

CAMPEN, C. F., JR.
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organic chemical compounds in aqueous solutions
[NASA-CASE-NPO-13063-1] c25 N76-18245

CANCRO, C. A.
Low power drain semi-conductor circuit
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[NASA-CASE-XGS-02612] c08 N71-19435
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Fast response low power drain logic circuits
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CANICATTI, C. L.
Voltage monitoring system
[NASA-CASE-KSC-10736-1] c33 N75-19521

CANNING, T. B.
Shock-layer radiation measurement
[NASA-CASE-XAC-02970] c14 N69-39896
Hypervelocity gun Patent
[NASA-CASE-XAC-05902] c11 N71-18578
Heater-mixer for stored fluids
[NASA-CASE-ARC-10442-1] c35 N74-15093
Bimetallic fluid displacement apparatus
[NASA-CASE-ARC-10441-1] c35 N74-15126

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Attitude control system Patent
[NASA-CASE-XGS-04393] c21 N71-14159
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[NASA-CASE-XGS-01784] c10 N71-20782
Roll alignment detector
[NASA-CASE-GSC-10514-1] c14 N72-20379

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Video communication system and apparatus Patent
[NASA-CASE-XNF-06611] c07 N71-26102

CAPLETTE, B. K.
Current steering commutator
[NASA-CASE-NPO-10743] c08 N72-21199

CAPPS, J. E.
Two-step rocket engine bipropellant valve Patent
[NASA-CASE-XMS-04890-1] c15 N70-22192

CARER, R. P.
Dual solid cryogenics for spacecraft refrigeration
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[NASA-CASE-GSC-10188-1] c23 N71-24725

CARL, C.
Apparatus for deriving synchronizing pulses from
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[NASA-CASE-NPO-11302-1] c07 N73-13149
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[NASA-CASE-NPO-11302-2] c32 N74-10132
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[NASA-CASE-NPO-11905-1] c33 N74-12887

CARL, G. E.
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[NASA-CASE-LAR-10076-1] c05 N73-20137

CARLE, C. E.
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[NASA-CASE-GSC-11960-1] c37 N77-14479

CARLISLE, T. E.
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CARLSON, A. W.
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CARLSON, E. W.
Supersonic aircraft Patent
[NASA-CASE-XIA-04451] c02 N71-12243

CARLSON, W. C. A.
Electric arc device for heating gases Patent
[NASA-CASE-XAC-00319] c25 N70-41628

CARNIN, D. L., JR.
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CARRHOY, R. J.
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Logarithmic function generator utilizing an
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CARPINI, T. D.
Flow velocity and directional instrument
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Split nut separation system Patent
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CARBOLL, W. F.
Stabilized zinc oxide coating compositions Patent
[NASA-CASE-XNF-07770-2] c18 N71-26772

CARSON, J. W.
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[NASA-CASE-ERC-10011] c07 N71-29065

CARSON, P. E.
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[NASA-CASE-ERC-10046] c10 N71-18722

CARSON, W. M., JR.
Didymium hydrate additive to nickel hydroxide
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[NASA-CASE-XGS-03505] c03 N71-10608

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[NASA-CASE-XIA-00675] c25 N70-33267
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[NASA-CASE-XIA-00147] c25 N70-34661

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[NASA-CASE-HSC-12135-1] c09 N71-12526

CASHION, K. D.
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[NASA-CASE-HSC-10966] c14 N71-19568
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INVENTOR INDEX

CHIAO, R. Y.

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CASTLE, K. D.
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High contrast cathode ray tube
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CAUDILL, L. O.
Long range laser traversing system
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CERINI, D. J.
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CERVENKA, P. O.
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CHAMBERLAIN, P. B.
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CHANDLER, W. A.
Cryogenic storage system Patent
[NASA-CASE-XMS-04390] c31 N70-41871

CHAO, J. I. L.
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Inflation system for balloon type satellites
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CHAPPELLER, E. W.
Use of the enzyme hexokinase for the reduction of inherent light levels
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Light detection instrument Patent
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Lyophilized reaction mixtures Patent
[NASA-CASE-XGS-05532] c06 N71-17705
Flavin coenzyme assay
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Method of detecting and counting bacteria in body fluids
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Protein sterilization method of firefly luciferase using reduced pressure and molecular sieves
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Automatic instrument for chemical processing to detect microorganism in biological samples by measuring light reactions
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[NASA-CASE-XMS-04670] c54 N78-17678

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Spectrally balanced chromatic landing approach lighting system
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[NASA-CASE-GSC-11531-1] c52 N74-27566

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Wind tunnel microphone structure Patent
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Reversed cowl flap inlet thrust augmentor
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[NASA-CASE-ARC-10812-1] c07 N76-18131
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CHEERDAN, A. S.
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CHESTNUT, D.
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CHI, K.
High pulse rate high resolution optical radar system
[NASA-CASE-NPO-11426] c07 N73-26119

CHIAO, R. Y.
Optical frequency waveguide Patent
[NASA-CASE-HQN-10541-1] c07 N71-26291
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[NASA-CASE-HQN-10541-3] c23 N72-23695

CHILDRESS, J. D.
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CHILDS, J. H.
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[NASA-CASE-XLE-00252] c11 N70-34844

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[NASA-CASE-HQN-10541-2] c15 N71-27135
Optical frequency waveguide and transmission
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[NASA-CASE-HQN-10541-4] c16 N71-27183

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CHOW, E. Y.
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[NASA-CASE-XNP-00416] c15 N70-36947

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CHREITZBERG, A. H.
Electric battery and method for operating same
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CHRISTMAN, L. H.
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CHUMLEY, J. F.
Zero gravity apparatus Patent
[NASA-CASE-XNP-06515] c14 N71-23227

CHUTJIAN, A.
High resolution threshold photoelectron
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CIEPLUCH, C. C.
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[NASA-CASE-XFR-05302] c15 N71-23254

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Production of crystals from molten solutions
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[NASA-CASE-XLA-05378] c11 N71-21475

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CLARK, J. B.
Automated fluid chemical analyzer Patent
[NASA-CASE-INP-09451] c06 N71-26754

CLARK, K. H.
End effector device
[NASA-CASE-MFS-23692-1] c54 N78-19773

CLARK, K. W.
Apparatus for assembling space structure
[NASA-CASE-MFS-23579-1] c12 N77-31213

CLARK, R. L.
Deposition apparatus
[NASA-CASE-LAR-10541-1] c15 N72-32487

CLARK, R. T.
Horn feed having overlapping apertures Patent
[NASA-CASE-GSC-10452] c07 N71-12396

CLARKE, D. R.
Thermal compression bonding of interconnectors
[NASA-CASE-GSC-10303] c15 N72-22487

CLATTERBUCK, C. H.
Spacecraft battery seals
[NASA-CASE-XGS-03864] c15 N69-24320
Process for making RF shielded cable connector
assemblies and the products formed thereby
[NASA-CASE-GSC-11215-1] c09 N73-28083
Microscope multi-angle, reflection, viewing
adaptor and photographic recording system
[NASA-CASE-GSC-11690-1] c14 N73-28499

CLAUSS, R. C.
Transmission line thermal short Patent
[NASA-CASE-XNP-09775] c09 N71-20445
Circulator having quarter wavelength resonant
post and parametric amplifier circuits
utilizing the same Patent
[NASA-CASE-XNP-02140] c09 N71-23097
High-gain, broadband traveling wave maser Patent
[NASA-CASE-NPO-10548] c16 N71-24831
Maser for frequencies in the 7-20 GHz range
[NASA-CASE-NPO-11437] c16 N72-28521
Refrigerated coaxial coupling
[NASA-CASE-NPO-13504-1] c33 N75-30430
Reflected-wave maser
[NASA-CASE-NPO-13490-1] c36 N76-31512

CLAWSON, G. T.
Method and apparatus for checking fire detectors
[NASA-CASE-GSC-11600-1] c35 N74-21019

CLAY, P. P., JR.
Ionization vacuum gauge with all but the end of
the ion collector shielded Patent
[NASA-CASE-XLA-07424] c14 N71-18482

CLEHNS, G. W., JR.
Deep space monitor communication satellite
system Patent
[NASA-CASE-XAC-06029-1] c31 N71-24813

CLEHNS, P. W.
Device for configuring multiple leads
[NASA-CASE-MFS-22133-1] c33 N74-26977

CLEMENT, W. G.
Friction measuring apparatus Patent
[NASA-CASE-XNP-08680] c14 N71-22995

CLEMENTS, P. A.
System for stabilizing cable phase delay
utilizing a coaxial cable under pressure
[NASA-CASE-NPO-13138-1] c33 N74-17927

CLEMONS, D. L., JR.
Thermal control of space vehicles Patent
[NASA-CASE-XLA-01291] c33 N70-36617

CLEVELAND, G. J.
Medical subject monitoring systems
[NASA-CASE-MSC-14180-1] c52 N76-14757

CLICKNER, R. E., JR.
Unbilical disconnect Patent
[NASA-CASE-XLA-00711] c03 N71-12258

CLIFF, R. A.
Data processor having multiple sections
activated at different times by selective
power coupling to the sections Patent
[NASA-CASE-XGS-04767] c08 N71-12494
Ripple add and ripple subtract binary counters
Patent
[NASA-CASE-XGS-04766] c08 N71-18602
Apparatus for computing square roots Patent
[NASA-CASE-XGS-04768] c08 N71-19437
Digitally controlled frequency synthesizer Patent
[NASA-CASE-XGS-02317] c09 N71-23525

SCR lamp driver
[NASA-CASE-GSC-10221-1] c09 N72-23171
Digital phase-locked loop
[NASA-CASE-GSC-11623-1] c33 N75-25040

CLIFF, W. C.
Wind measurement system
[NASA-CASE-MFS-23362-1] c47 N77-10753

- CLINE, B. W.
Method and apparatus for optically monitoring the angular position of a rotating mirror
[NASA-CASE-GSC-11353-1] c74 N74-21304
- CLOTZELT, W. H.
Apparatus for the determination of the existence or non-existence of a bonding between two members Patent
[NASA-CASE-MFS-13686] c15 N71-18132
Device for measuring the ferrite content in an austenitic stainless-steel weld
[NASA-CASE-MFS-22907-1] c26 N76-18257
Method for measuring biaxial stress in a body subjected to stress inducing loads
[NASA-CASE-MFS-23299-1] c39 N77-28511
- CLOUGH, L. G.
Driving lamps by induction
[NASA-CASE-MFS-21214-1] c09 N73-30181
- COBIN, J. C.
Latching mechanism Patent
[NASA-CASE-MSC-15479-1] c15 N71-26162
- COCCA, F. J.
Method and apparatus for detecting surface ions on silicon diodes and transistors
[NASA-CASE-ERC-10325] c15 N72-25457
- COE, B. H.
High speed rolling element bearing
[NASA-CASE-LEW-10856-1] c15 N72-22490
- COE, P. L., JR.
Supersonic transport
[NASA-CASE-LAR-11932-1] c05 N76-31219
- COFFINBERY, G. A.
Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12830-1] c07 N77-23106
Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12321-1] c37 N78-10467
- COHEN, D.
Fluid sample collector Patent
[NASA-CASE-XMS-06767-1] c14 N71-20435
- COHEN, E. A.
Audio frequency marker system
[NASA-CASE-NFO-11147] c14 N72-27408
- COHEN, E. F.
Digital modulator and demodulator Patent
[NASA-CASE-ERC-10041] c08 N71-29138
- COHEN, M. S.
Nitramine propellants
[NASA-CASE-NFO-14103-1] c28 N77-25346
- COHEN, R. A.
A method for selective gold diffusion of monolithic silicon devices and/or circuits Patent application
[NASA-CASE-ERC-10072] c09 N70-11148
Method and apparatus for stable silicon dioxide layers on silicon grown in silicon nitride ambient
[NASA-CASE-ERC-10073-1] c24 N74-19769
- COHN, E. H.
Rechargeable battery which combats shape change of the zinc anode
[NASA-CASE-BQN-10862-1] c44 N76-29699
- COHN, R. B.
Acoustical transducer calibrating system and apparatus
[NASA-CASE-FBC-10060-1] c14 N73-27379
- COKEE, L. R.
Quick disconnect latch and handle combination Patent
[NASA-CASE-MFS-11132] c15 N71-17649
- COLBURN, R. E.
Automatic instrument for chemical processing to detect microorganism in biological samples by measuring light reactions
[NASA-CASE-GSC-11169-2] c05 N73-32011
- COLE, E. A., JR.
Method and apparatus for measuring the damping characteristics of a structure
[NASA-CASE-ARC-10154-1] c14 N72-22440
- COLE, P. T.
Low friction magnetic recording tape Patent
[NASA-CASE-XGS-00373] c23 N71-15978
System for recording and reproducing pulse code modulated data Patent
[NASA-CASE-XGS-01021] c08 N71-21042
Friction measuring apparatus Patent
[NASA-CASE-INP-08680] c14 N71-22995
Helical recorder arrangement for multiple channel recording on both sides of the tape
[NASA-CASE-GSC-10614-1] c09 N72-11224
- COLES, W. D.
Twisted multifilament superconductor
[NASA-CASE-LEW-11726-1] c26 N73-26752
Method of fabricating a twisted composite superconductor
[NASA-CASE-LEW-11015] c26 N73-32571
- COLLIER, L.
Garments for controlling the temperature of the body Patent
[NASA-CASE-XMS-10269] c05 N71-24147
- COLLIN, E. E.
Apparatus and method for skin packaging articles
[NASA-CASE-MFS-20855] c15 N73-27405
- COLLINS, D. D.
Process for removing sulfur dioxide from gas streams
[NASA-CASE-MSC-16299-1] c45 N77-31668
Simultaneous treatment of SO₂ containing stack gases and waste water
[NASA-CASE-MSC-16258-1] c85 N78-15954
- COLLINS, D. F., JR.
Fluid power transmitting gas bearing Patent
[NASA-CASE-ERC-10097] c15 N71-28465
- COLLINS, E. E.
Automated multi-level vehicle parking system
[NASA-CASE-NFO-13058-1] c37 N77-22480
- COLLINS, E. E., JR.
Impact energy absorbing system utilizing fractureable material
[NASA-CASE-NFO-10671] c15 N72-20443
- COLLINS, V. G.
Recovery of potable water from human wastes in below-G conditions Patent
[NASA-CASE-XLA-03213] c05 N71-11207
- COLLINS, W. A.
Flight control system
[NASA-CASE-MSC-13397-1] c21 N72-25595
- COLONY, J. A.
Phototropic composition of matter
[NASA-CASE-XGS-03736] c14 N72-22443
- CONANT, J. E.
Television simulation for aircraft and space flight Patent
[NASA-CASE-XFR-03107] c09 N71-19449
- CONE, C. D., JR.
Minimum induced drag airfoil body Patent
[NASA-CASE-XLA-00755] c01 N71-13410
Minimum induced drag airfoil body Patent
[NASA-CASE-XLA-05828] c01 N71-13411
Absolute focus lock for microscopes
[NASA-CASE-LAR-10184] c14 N72-22445
Process for control of cell division
[NASA-CASE-LAR-10773-3] c51 N77-25769
- CONGER, C. C.
Inductance device with vacuum insulation
[NASA-CASE-LEW-10330-1] c09 N72-27226
- CONIGLIO, G. V.
Petzval type objective including field shaping lens Patent
[NASA-CASE-GSC-10700] c23 N71-30027
- CONN, J. E.
Moment of inertia test fixture Patent
[NASA-CASE-XGS-01023] c14 N71-22992
- CONNELL, E. W.
Flexible joint for pressurizable garment
[NASA-CASE-MSC-11072] c54 N74-32546
- CONNOLLY, D. J.
Traveling wave tube circuit
[NASA-CASE-LEW-12013-1] c33 N77-17360
- CONNOLLY, J. P.
Automatic real-time pair-feeding system for animals
[NASA-CASE-ARC-10302-1] c51 N74-15778
- CONNOBS, J. F.
Annular rocket motor and nozzle configuration Patent
[NASA-CASE-XLE-00078] c28 N70-33284
Annular supersonic decelerator or drogue Patent
[NASA-CASE-XLE-00222] c02 N70-37939
Penshape exhaust nozzle for supersonic engine Patent
[NASA-CASE-XLE-00057] c28 N70-38711
Telescoping-spike supersonic inlet for aircraft engines Patent
[NASA-CASE-XLE-00005] c28 N70-39899
Thrust and direction control apparatus Patent
[NASA-CASE-XLE-03583] c31 N71-17629
- CONRAD, E. W.
Thrust vector control apparatus Patent

[NASA-CASE-XLE-00294]	c28 N70-34294	Patent	[NASA-CASE-GSC-10188-1]	c23 N71-24725
Non-reusable kinetic energy absorber	Patent			
[NASA-CASE-XLE-00810]	c15 N70-34861	COTE, C. E.	Display for binary characters	Patent
CONRAD, W. M.			[NASA-CASE-XGS-04987]	c08 N71-20571
Frequency modulation demodulator threshold extension device	Patent	COUCH, R. H.	Apparatus for aiding a pilot in avoiding a midair collision between aircraft	
[NASA-CASE-HSC-12165-1]	c07 N71-33696		[NASA-CASE-LAR-10717-1]	c21 N73-30641
CONWAY, E. J.			Phase modulating with odd and even finite power series of a modulating signal	
Method for detecting pollutants			[NASA-CASE-LAR-11607-1]	c32 N77-14292
[NASA-CASE-LAR-11405-1]	c45 N76-31714	COULBERT, C. D.	Multislut film cooled pyrolytic graphite rocket nozzle	Patent
COGLIN, J. M.			[NASA-CASE-XNP-04389]	c28 N71-20942
Method of planetary atmospheric investigation using a split-trajectory dual flyby mode	Patent	COUVILLON, L. A., JR.	Signal-to-noise ratio estimating by taking ratio of mean and standard deviation of integrated signal samples	Patent
[NASA-CASE-XAC-08494]	c30 N71-15990		[NASA-CASE-XNP-05254]	c07 N71-20791
COOK, T. A.			Method and apparatus for frequency-division multiplex communications by digital phase shift of carrier	
Metering gun for dispensing precisely measured charges of fluid			[NASA-CASE-NPO-11338]	c08 N72-25208
[NASA-CASE-HFS-21163-1]	c54 N74-17853		Apparatus for deriving synchronizing pulses from pulses in a single channel PCM communications system	
COOK, W. H., JR.			[NASA-CASE-NPO-11302-1]	c07 N73-13149
Detector panels-micrometeoroid impact	Patent		Pseudonoise (PN) synchronization of data system with derivation of clock frequency from received signal for clocking receiver PN generator	
[NASA-CASE-XLA-05906]	c31 N71-16221		[NASA-CASE-XNP-03623]	c09 N73-28084
COOLIDGE, J. E.			Method and apparatus for a single channel digital communications system	
Data transfer system	Patent		[NASA-CASE-NPO-11302-2]	c32 N74-10132
[NASA-CASE-NPO-12107]	c08 N71-27255	COWAN, J. J.	Holography utilizing surface plasmon resonances	
COON, G. W.			[NASA-CASE-HFS-22040-1]	c35 N74-26946
Vibrating element electrometer with output signal magnified over input signal by a function of the mechanical Q of the vibrating element	Patent	COWELL, T. E.	Aerodynamic spike nozzle	Patent
[NASA-CASE-XAC-02807]	c09 N71-23021		[NASA-CASE-XGS-01143]	c31 N71-15647
Thermally cycled magnetometer	Patent	COX, J. A.	Analog-to-digital converter	
[NASA-CASE-XAC-03740]	c14 N71-26135		[NASA-CASE-HSC-13110-1]	c08 N72-22163
Trielectrode capacitive pressure transducer		CRABILL, W. L.	Control system for rocket vehicles	Patent
[NASA-CASE-ARC-10711-2]	c33 N76-21390		[NASA-CASE-XLA-01163]	c21 N71-15582
COOPER, C. R.		CRAIG, R. A.	Reduction of nitric oxide emissions from a combustor	
Underwater space suit pressure control regulator			[NASA-CASE-ARC-10814-2]	c25 N77-31260
[NASA-CASE-HFS-20332]	c05 N72-20097	CRAWFORD, R.	Solar energy powered heliotrope	
Underwater space suit pressure control regulator			[NASA-CASE-GSC-10945-1]	c21 N72-31637
[NASA-CASE-HFS-20332-2]	c05 N73-25125	CRAWFORD, W. E.	Drive circuit for minimizing power consumption in inductive load	Patent
COOPER, D. W.			[NASA-CASE-NPO-10716]	c09 N71-24892
Generator for a space power system	Patent	CREASY, W. K.	Shock absorber	Patent
[NASA-CASE-XLE-04250]	c09 N71-20446		[NASA-CASE-XMS-03722]	c15 N71-21530
Method of forming metal hydride films		CREB, D.	Amplifier drift tester	
[NASA-CASE-LEW-12083-1]	c37 N78-13436		[NASA-CASE-XMS-05562-1]	c09 N69-39986
COOPER, W. E.		CREE, R. P.	Catalyst for growth of boron carbide single crystal whiskers	
Collapsible Apollo couch			[NASA-CASE-XHQ-03903]	c15 N69-21922
[NASA-CASE-HSC-13140]	c05 N72-11085	CREEDON, J. F.	Weld-bonded titanium structures	
COPELAND, J. T., JR.			[NASA-CASE-LAR-11549-1]	c37 N77-11397
High speed photo-optical time recording		CREEL, T. H., JR.	Apparatus for determining thermophysical properties of test specimens	
[NASA-CASE-KSC-10294]	c14 N72-18411		[NASA-CASE-LAR-11883-1]	c09 N77-27131
CORBIN, P. L.		CREPEAU, P. C.	Flexible, repairable, pottable material for electrical connectors	Patent
Automatic fatigue test temperature programmer			[NASA-CASE-XGS-05180]	c18 N71-25881
Patent		CRESS, S. B.	Coaxial inverted geometry transistor having buried emitter	
[NASA-CASE-XLA-02059]	c33 N71-24276		[NASA-CASE-ARC-10330-1]	c09 N73-32112
CORWILL, R. J., JR.		CRISSEY, J. R.	Display for binary characters	Patent
Stretch de-spin mechanism	Patent		[NASA-CASE-XGS-04987]	c08 N71-20571
[NASA-CASE-XGS-00619]	c30 N70-40016			
CORNISH, S. D.				
Plane detector operable in presence of proton radiation				
[NASA-CASE-HFS-21577-1]	c19 N74-29410			
CORSON, B. W., JR.				
Nozzle	Patent			
[NASA-CASE-XLA-00154]	c28 N70-33374			
Cascade plug nozzle				
[NASA-CASE-LAR-10951-1]	c28 N73-19819			
Cascade plug nozzle				
[NASA-CASE-LAR-11674-1]	c07 N76-18117			
CORWIN, R. R.				
Apparatus for determining thermophysical properties of test specimens				
[NASA-CASE-LAR-11883-1]	c09 N77-27131			
COSTAKOS, N. C.				
Deployable flexible tunnel				
[NASA-CASE-HFS-22636-1]	c37 N76-22540			
COSTEN, R. C.				
Smokestack mounted airfoil				
[NASA-CASE-LAR-11669-1]	c34 N76-13419			
Vortex generator for controlling the dispersion of effluents in a flowing liquid				
[NASA-CASE-LAR-12045-1]	c34 N77-24423			
COSTES, W. C.				
Self-recording portable soil penetrometer				
[NASA-CASE-HFS-20774]				

CREWS, J. H., JR.
Strain coupled servo control system Patent
[NASA-CASE-XLA-08530] c32 N71-25360

CRIBB, B. E.
Parasitic probe antenna Patent
[NASA-CASE-IKS-09348] c09 N71-13521
Weatherproof helix antenna Patent
[NASA-CASE-IKS-08485] c07 N71-19493
VHF/UHF parasitic probe antenna Patent
[NASA-CASE-IKS-09340] c07 N71-24614
Validation device for spacecraft checkout
equipment Patent
[NASA-CASE-IKS-10543] c07 N71-26292
Protective suit having an audio transceiver Patent
[NASA-CASE-KSC-10164] c07 N71-33108
Collapsible high gain antenna
[NASA-CASE-KSC-10392] c07 N73-26117

CROFT, R. M.
Personal propulsion unit Patent
[NASA-CASE-MFS-20130] c28 N71-27585

CROFTS, D. E.
Heat flux sensor assembly
[NASA-CASE-IMS-05909-1] c14 N69-27459

CROOM, D. R.
Vortex attenuation method
[NASA-CASE-LAR-12034-1] c02 N77-22045

CROSWELL, W. F.
Omnidirectional microwave spacecraft antenna
Patent
[NASA-CASE-XLA-03114] c09 N71-22888
Stacked array of omnidirectional antennas
[NASA-CASE-LAR-10545-1] c09 N72-21244
Dielectric loaded aperture antenna
[NASA-CASE-LAR-11084-1] c09 N73-12216

CROUCH, H. W.
Shrink-fit gas valve Patent
[NASA-CASE-IGS-00587] c15 N70-35087

CROUCH, R. K.
Vapor phase growth of groups 3-5 compounds by
hydrogen chloride transport of the elements
[NASA-CASE-LAR-11144-1] c25 N75-26043

CROW, R. B.
Wide band doubler and sine wave quadrature
generator
[NASA-CASE-NPO-11133] c10 N72-20223
Filter for third order phase locked loops
[NASA-CASE-NPO-11941-1] c10 N73-27171
Frequency discriminator and phase detector circuit
[NASA-CASE-NPO-11515-1] c33 N77-13315

CRUM, G. W.
Foot pedal operated fluid type exercising device
[NASA-CASE-MSC-11561-1] c05 N73-32014

CRUMPLER, J. P.
Vacuum pressure molding technique
[NASA-CASE-LAR-10073-1] c37 N76-24575

CRUMPLER, W. B.
All-directional fastener Patent
[NASA-CASE-XLA-01807] c15 N71-10799
Multilegged support system Patent
[NASA-CASE-XLA-01326] c11 N71-21481

CRUTCHER, J. E.
Isolation coupling arrangement for a torque
measuring system
[NASA-CASE-XLA-04897] c15 N72-22482

CUBBISON, R. W.
Thrust and direction control apparatus Patent
[NASA-CASE-XLE-03583] c31 N71-17629

COBLEY, H. D.
Antenna array phase quadrature tracking system
Patent
[NASA-CASE-MSC-12205-1] c07 N71-27056

CUDDIHY, B. P.
Method of making hollow elastomeric bodies
[NASA-CASE-NPO-13535-1] c37 N76-31524

CULLER, V. H.
Myocardium wall thickness transducer and
measuring method
[NASA-CASE-NPO-13644-1] c52 N76-29895
Catheter tip force transducer for cardiovascular
research
[NASA-CASE-NPO-13643-1] c52 N76-29896

CULP, D. H.
Process for preparing liquid metal electrical
contact device
[NASA-CASE-LEW-11978-1] c33 N77-26385

CUNNINGHAM, B. E.
Potable water dispenser
[NASA-CASE-MFS-21115-1] c54 N74-12779

CUNNINGHAM, R. E.
Hydrostatic bearing support
[NASA-CASE-LEW-11158-1] c37 N77-28486

CURRIE, J. E.
Bi-carrier demodulator with modulation Patent
[NASA-CASE-IMP-01160] c07 N71-11298
Transistor servo system including a unique
differential amplifier circuit Patent
[NASA-CASE-IMP-05195] c10 N71-24861
Pulse width inverter Patent
[NASA-CASE-MFS-10068] c10 N71-25139
Ratemeter
[NASA-CASE-MFS-20418] c14 N73-24473
Induction motor control system with voltage
controlled oscillator circuit
[NASA-CASE-MFS-21465-1] c10 N73-32145

CURRIE, R. E., JR.
Relay binary circuit Patent
[NASA-CASE-IMP-00421] c09 N70-34502

CURRY, J. E.
Method of producing alternating ether siloxane
copolymers Patent
[NASA-CASE-IMP-02584] c06 N71-20905

CURRY, R. C.
Torsional disconnect unit
[NASA-CASE-NPO-10704] c15 N72-20445

CURRY, R. E.
Display research collision warning system
[NASA-CASE-HQN-10703] c21 N73-13643

CURTIS, D. L.
Life support system
[NASA-CASE-MSC-12411-1] c05 N72-20096

CYGNAROWICZ, T. A.
System for and method of freezing biological
tissue
[NASA-CASE-GSC-12173-1] c52 N77-27693

CZARCINSKI, R. A.
Programmable telemetry system Patent
[NASA-CASE-GSC-10131-1] c07 N71-24624

D

DARGES, J. J.
Motor run-up system
[NASA-CASE-NPO-13374-1] c33 N75-19524

DAHN, W. K.
Clear air turbulence detector
[NASA-CASE-MFS-21244-1] c36 N75-15028
Focused laser Doppler velocimeter
[NASA-CASE-MFS-23178-1] c35 N77-10493
Wind measurement system
[NASA-CASE-MFS-23362-1] c47 N77-10753

DAILED, J. J.
Multi-purpose wind tunnel reaction control model
block
[NASA-CASE-MSC-19706-1] c09 N77-19077

DAILEY, C. C.
Microwave power receiving antenna Patent
[NASA-CASE-MFS-20333] c09 N71-13486
Method of and means for testing a
glancing-incidence mirror system of an X-ray
telescope
[NASA-CASE-MFS-22409-2] c74 N78-15880

DALE, W. J.
Method of fabricating an article with cavities
[NASA-CASE-LAR-10318-1] c31 N74-18089
Bonding method in the manufacture of continuous
regression rate sensor devices
[NASA-CASE-LAR-10337-1] c24 N75-30260

DALIELLO, G. F.
Synthesis of polymeric schiff bases by
schiff-base exchange reactions Patent
[NASA-CASE-IMP-08651] c06 N71-11236
Direct synthesis of polymeric schiff bases from
two amines and two aldehydes Patent
[NASA-CASE-IMP-08655] c06 N71-11239
Azine polymers and process for preparing the
same Patent
[NASA-CASE-IMP-08656] c06 N71-11242
Synthesis of polymeric schiff bases by reaction
of acetals and amine compounds Patent
[NASA-CASE-IMP-08652] c06 N71-11243
Aromatic diamine-aromatic dialdehyde high
molecular weight Schiff base polymers prepared
in a monofunctional Schiff base Patent
[NASA-CASE-IMP-03074] c06 N71-24740

DALY, W. M.
Fault tolerant clock apparatus utilizing a
controlled minority of clock elements

[NASA-CASE-MSC-12531-1]	c35 N75-30504	Solar energy power system	
DAMERON, C. E.		[NASA-CASE-MPS-21628-1]	c44 N75-32581
Instrument for measuring potentials on two		Solar energy power system	
dimensional electric field plots Patent		[NASA-CASE-MPS-21628-2]	c44 N76-23675
[NASA-CASE-XLA-08493]	c10 N71-19421	DAVIS, D. P.	
DAMMIG, A. R., JR.		Quick disconnect coupling	
Capacitive tank gaging apparatus being		[NASA-CASE-NPO-11202]	c15 N72-25450
independent of liquid distribution		DAVIS, E. J.	
[NASA-CASE-MPS-21629]	c14 N72-22442	Cable stabilizer for open shaft cable operated	
DANCHENKO, V.		elevators	
Radiation hardening of MOS devices by boron		[NASA-CASE-KSC-10513]	c15 N72-25453
[NASA-CASE-GSC-11425-1]	c76 N74-20329	DAVIS, E. S.	
Radiation hardening of MOS devices by boron		Anti-glare improvement for optical imaging	
[NASA-CASE-GSC-11425-2]	c76 N75-25730	systems Patent	
DANE, D. B.		[NASA-CASE-NPO-10337]	c14 N71-15604
Harness assembly Patent		Radiant energy intensity measurement system Patent	
[NASA-CASE-MPS-14671]	c05 N71-12341	[NASA-CASE-XMP-06510]	c14 N71-23797
Air cushion lift pad Patent		Reference voltage switching unit	
[NASA-CASE-MPS-14685]	c31 N71-15689	[NASA-CASE-NPO-11253]	c09 N72-17157
Ratchet mechanism Patent		DAVIS, J. G., JR.	
[NASA-CASE-MPS-12805]	c15 N71-17805	Tube fabricating process	
Mechanical simulator of low gravity conditions		[NASA-CASE-LAR-10203-1]	c15 N72-16330
Patent		DAVIS, J. P.	
[NASA-CASE-MPS-10555]	c11 N71-19494	Multi-ducted electromagnetic pump Patent	
Mechanically actuated triggered hand		[NASA-CASE-NPO-10755]	c15 N71-27084
[NASA-CASE-MPS-20413]	c15 N72-21463	Shell side liquid metal boiler	
Sprag solenoid brake		[NASA-CASE-NPO-10831]	c33 N72-20915
[NASA-CASE-MPS-21846-1]	c37 N74-26976	Uninsulated in-core thermionic diode	
Orthotic arm joint		[NASA-CASE-NPO-10542]	c09 N72-27228
[NASA-CASE-MPS-21611-1]	c54 N75-12616	DAVIS, J. W.	
Remote manipulator system		Burst diaphragm flow initiator Patent	
[NASA-CASE-MPS-22022-1]	c37 N76-15460	[NASA-CASE-MPS-12915]	c11 N71-17600
DANGLE, E. R.		Wind tunnel test section	
Rocket engine Patent		[NASA-CASE-MPS-20509]	c11 N72-17183
[NASA-CASE-XLE-00342]	c28 N70-37980	Altitude simulation chamber for rocket engine	
DANIELS, H. J.		testing	
Adaptive tracking notch filter system Patent		[NASA-CASE-MPS-20620]	c11 N72-27262
[NASA-CASE-XMP-01892]	c10 N71-22986	DAVIS, L. P.	
DAWSKIN, J. H.		Isolation coupling arrangement for a torque	
Fuel injection pump for internal combustion		measuring system	
engines Patent		[NASA-CASE-XLA-04897]	c15 N72-22482
[NASA-CASE-MSC-12139-1]	c28 N71-14058	DAVIS, E. S.	
DARCHEY, R. J.		Decomposition unit Patent	
Satellite communication system and method Patent		[NASA-CASE-XMS-00583]	c28 N70-38504
[NASA-CASE-GSC-10118-1]	c07 N71-24621	DAVIS, W. T.	
DARR, J., JR.		Strain coupled servo control system Patent	
Threadless fastener apparatus Patent		[NASA-CASE-XLA-08530]	c32 N71-25360
[NASA-CASE-XPR-05302]	c15 N71-23254	DAVIDSON, E. R.	
DARROW, W. E., JR.		Meteoroid sensing apparatus having a coincidence	
Collapsible nozzle extension for rocket engines		network connected to a pair of capacitors	
Patent			
[NASA-CASE-MPS-11497]	c28 N71-16224	[NASA-CASE-XLE-01246]	c14 N71-10797
DASGUPTA, K.		DAVIDSON, E. W.	
Dual purpose optical instrument capable of		Gaseous control system for nuclear reactors	
simultaneously acting as spectrometer and		[NASA-CASE-XLE-04599]	c22 N72-20597
diffractometer		DAWN, F. S.	
[NASA-CASE-XMP-05231]	c14 N73-28491	Burn rate testing apparatus	
DAVID, B. H.		[NASA-CASE-XMS-09690]	c33 N72-25913
Insulated electrocardiographic electrodes		Lightweight electrically powered flexible	
[NASA-CASE-MSC-14339-1]	c05 N75-24716	thermal laminate	
DAVIDS, L. H.		[NASA-CASE-MSC-12662-1]	c24 N75-16635
Guidance and maneuver analyzer Patent		DAY, J. L.	
[NASA-CASE-XMP-09572]	c14 N71-15621	Electrode for biological recording	
DAVIDSON, A. C.		[NASA-CASE-XMS-02872]	c05 N69-21925
Spacecraft attitude sensor		Pressed disc type sensing electrodes with ion-	
[NASA-CASE-GSC-10890-1]	c21 N73-30640	screening means Patent	
DAVIDSON, G. A.		[NASA-CASE-XMS-04212-1]	c05 N71-12346
Compact Spectroradiometer		Method of making a perspiration resistant	
[NASA-CASE-BQN-10683]	c14 N71-34389	biopotential electrode	
DAVIDSON, J. K.		[NASA-CASE-MSC-90153-2]	c05 N72-25120
Ripple indicator		DAYAN, V. H.	
[NASA-CASE-KSC-10162]	c09 N72-11225	Hydrogen leak detection device Patent	
DAVIDSON, J. S. W.		[NASA-CASE-MPS-11537]	c14 N71-20442
Centrifuge mounted motion simulator Patent		DEBBAN, W. J.	
[NASA-CASE-XAC-00399]	c11 N70-34815	Magnetometer	
DAVIES, W. D. T.		[NASA-CASE-LAR-11617-2]	c35 N77-17430
Correlation type phase detector		DEBBAN, W. J., JR.	
[NASA-CASE-GSC-11744-1]	c33 N75-26243	Vapor phase growth of groups 3-5 compounds by	
DAVIS, A. J.		hydrogen chloride transport of the elements	
Fiber optic vibration transducer and analyzer		[NASA-CASE-LAR-11144-1]	c25 N75-26043
Patent		DEBOO, G. J.	
[NASA-CASE-XMP-02433]	c14 N71-10616	Gyrator type circuit Patent	
DAVIS, B. K.		[NASA-CASE-XAC-10608-1]	c09 N71-12517
Spectral method for monitoring atmospheric		Feedback integrator with grounded capacitor Patent	
contamination of inert-gas welding shields		[NASA-CASE-XAC-10607]	c10 N71-23669
Patent		Precision rectifier with FET switching means	
[NASA-CASE-XMP-02039]	c15 N71-15871	Patent	
Stud-bonding gun		[NASA-CASE-ARC-10101-1]	c09 N71-33109
[NASA-CASE-MPS-20299]	c15 N72-11392		

Phase shift circuit apparatus
[NASA-CASE-ARC-10269-1] c10 N72-16172

Temperature compensated light source using a
light emitting diode [NASA-CASE-ARC-10467-1] c09 N73-14214

Self-tuning bandpass filter
[NASA-CASE-ARC-10264-1] c09 N73-20231

DECARLO, F. S.
Failure detection and control means for improved
drift performance of a gimballed platform system
[NASA-CASE-NPS-23551-1] c04 N76-26175

DECKER, A. J.
High powered arc electrodes
[NASA-CASE-LEW-11162-1] c33 N74-12913

DEDOLPH, R. D.
Rotary plant growth accelerating apparatus
[NASA-CASE-ARC-10722-1] c51 N75-25503

DEERKOSKI, L. F.
Signal-to-noise ratio determination circuit
[NASA-CASE-GSC-11239-1] c10 N73-25241

Switchable beamwidth monopulse method and system
[NASA-CASE-GSC-11924-1] c33 N76-27472

Pseudo noise code and data transmission method
and apparatus [NASA-CASE-GSC-12017-1] c32 N77-30308

DEFURIA, R. B.
Fluid power transmitting gas bearing Patent
[NASA-CASE-ERC-10097] c15 N71-28465

DEGENER, H. D.
Traversing probe Patent
[NASA-CASE-IFR-02007] c12 N71-24692

DEGRASSE, R. W.
Folded traveling wave maser structure Patent
[NASA-CASE-INP-05219] c16 N71-15550

DEIS, B. C.
Traveling sealer for contoured table Patent
[NASA-CASE-XLA-01494] c15 N71-24164

Drop foot corrective device
[NASA-CASE-LAR-12259-1] c54 N78-18762

DEL CASALE, L. A.
Signal generator
[NASA-CASE-INP-05612] c09 N69-21468

DEL CURTO, B.
System for monitoring the presence of neutrals
in a stream of ions Patent
[NASA-CASE-INP-02592] c24 N71-20518

DEL DUCA, A.
Electronic divider and multiplier using
photocells Patent
[NASA-CASE-IFR-05637] c09 N71-19480

DELANO, C. B.
Polymeric foams from cross-linkable
poly-N-arylenebenzimidazoles
[NASA-CASE-ARC-11008-1] c27 N76-28421

DELAPLAIN, R. W.
Rotary leveling base platform
[NASA-CASE-ARC-10981-1] c35 N77-10498

DELAURE, L. A.
Emergency earth orbital escape device
[NASA-CASE-MSC-13281] c31 N72-18859

DELGREGO, D. J.
Clear air turbulence detector
[NASA-CASE-NPS-21244-1] c36 N75-15028

DELUCA, J. J.
Segmented superconducting magnet for a broadband
traveling wave maser Patent
[NASA-CASE-XGS-10518] c16 N71-28554

Bonding of sapphire to sapphire by eutectic
mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-1] c37 N75-15992

Bonding of sapphire to sapphire by eutectic
mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-3] c24 N76-19234

DELVIGS, P.
Preparation of polyimides from mixtures of
monomeric diamines and esters of
polycarboxylic acids
[NASA-CASE-LEW-11325-1] c06 N73-27980

DEHING, J. W.
Detection of microbial infection in blood and
antibiotic determinations
[NASA-CASE-GSC-12045-1] c52 N77-18733

Determination of antimicrobial susceptibilities
of infected urines without isolation
[NASA-CASE-GSC-12046-1] c52 N77-26797

DEHOENES, C.
Low cycle fatigue testing machine
[NASA-CASE-LAR-10270-1] c32 N72-25877

DEHOREST, K. E.
Self-lubricating gears and other mechanical
parts Patent
[NASA-CASE-NPS-14971] c15 N71-24984

DEHACI, D. B.
Clamping assembly for inertial components Patent
[NASA-CASE-XMS-02184] c15 N71-20813

DEO, W.
Dual purpose momentum wheels for spacecraft with
magnetic recording
[NASA-CASE-NPO-11481] c21 N73-13644

DERING, V. G.
Vortex breech high pressure gas generator
[NASA-CASE-LAR-10549-1] c31 N73-13898

DEER, L. J.
Direct radiation cooling of the collector of
linear beam tubes
[NASA-CASE-INP-09227] c15 N69-24319

Temperature-compensating means for cavity
resonator of amplifier Patent
[NASA-CASE-INP-00449] c14 N70-35220

Electron beam tube containing a multiple cathode
array employing indexing means for cathode
substitution Patent
[NASA-CASE-NPO-10625] c09 N71-26182

Thermostatic actuator
[NASA-CASE-NPO-10637] c15 N72-12409

Thermal motor
[NASA-CASE-NPO-11283] c09 N72-25260

Electrostatically controlled heat shutter
[NASA-CASE-NPO-11942-1] c33 N73-32818

DESCAMP, V. A.
Filter regeneration systems
[NASA-CASE-MSC-14273-1] c34 N75-33342

DESTERSE, J. G.
Thermionic tantalum emitter doped with oxygen
Patent Application
[NASA-CASE-NPO-11138] c03 N70-34646

DETWEILER, H. K.
High isolation RF signal selection switches
[NASA-CASE-NPO-13081-1] c33 N74-22814

DEVINE, E. J.
Optical tracker having overlapping reticles on
parallel axes Patent
[NASA-CASE-XGS-05715] c23 N71-16100

DEWHIRST, D. L.
Deformable vehicle wheel Patent
[NASA-CASE-NPS-20400] c31 N71-18611

DEWITT, R. L.
Fluid coupling Patent
[NASA-CASE-XLE-00397] c15 N70-36492

DEYOUNG, R. J.
Volumetric direct nuclear pumped laser
[NASA-CASE-LAR-12183-1] c36 N77-21424

DI LOSA, V. J.
Diversity receiving system with diversity phase
lock Patent
[NASA-CASE-XGS-01222] c10 N71-20841

DIAMOND, D. D.
Stator rotor tools
[NASA-CASE-MSC-16000-1] c07 N77-13062

DIAMOND, R. H.
Central spar and module joint Patent
[NASA-CASE-INP-02341] c15 N71-21531

DIBATTISTA, J. D.
Anti-meteoroid device
[NASA-CASE-LAR-10788-1] c31 N73-20880

Determining particle density using known
material Hugoniot curves
[NASA-CASE-LAR-11059-1] c76 N75-12810

Meteoroid impact position locator aid for manned
space station
[NASA-CASE-LAR-10629-1] c35 N75-33367

DICKENS, L. E.
Millimeter wave pumped parametric amplifier
[NASA-CASE-GSC-11617-1] c33 N74-32660

DICKERSON, G. E.
Composite lamination method
[NASA-CASE-LAR-12019-1] c24 N78-17150

DICKINSON, R. M.
RF beam center location method and apparatus for
power transmission system
[NASA-CASE-NPO-13821-1] c44 N76-26692

Thin conformal antenna array for microwave power
conversion
[NASA-CASE-NPO-13886-1] c32 N77-11269

Microwave power converter
[NASA-CASE-NPO-14068-1] c44 N78-19609

DIETRICH, P. J.
Amplitude steered array
[NASA-CASE-GSC-11446-1] c33 N74-20860

DILLON, R. F., JR.
Shock absorbing mount for electrical components
[NASA-CASE-NPO-13253-1] c37 N75-18573

DINEFF, J.
Cryogenic apparatus for measuring the intensity of magnetic fields
[NASA-CASE-XAC-02407] c14 N69-27423
Apparatus for coupling a plurality of ungrounded circuits to a grounded circuit Patent
[NASA-CASE-XAC-00086] c09 N70-33182
Two-plane balance Patent
[NASA-CASE-XAC-00073] c14 N70-34813
Differential pressure cell Patent
[NASA-CASE-XAC-00042] c14 N70-34816
High speed low level electrical stepping switch Patent
[NASA-CASE-XAC-00060] c09 N70-39915
Dynamic sensor Patent
[NASA-CASE-XAC-02877] c14 N70-41681
Electrostatic charged particle analyzer having deflection members shaped according to the periodic voltage applied thereto Patent
[NASA-CASE-XAC-05506-1] c24 N71-16095
Inertial reference apparatus Patent
[NASA-CASE-XAC-03107] c23 N71-16098
Thermal detector of electromagnetic energy by means of a vibrating electrode Patent
[NASA-CASE-XAC-10768] c09 N71-18830
Vibrating element electrometer with output signal magnified over input signal by a function of the mechanical Q of the vibrating element Patent
[NASA-CASE-XAC-02807] c09 N71-23021
Wide range dynamic pressure sensor
[NASA-CASE-ARC-10263-1] c14 N72-22438
Nondispersive gas analyzing method and apparatus wherein radiation is serially passed through a reference and unknown gas
[NASA-CASE-ARC-10308-1] c06 N72-31141
Diode-quad bridge circuit means
[NASA-CASE-ARC-10364-2(B)] c33 N74-14941
Chromato-fluorographic drug detector
[NASA-CASE-ARC-10633-1] c25 N74-26947
Diode-quad bridge circuit means
[NASA-CASE-ARC-10364-3] c33 N75-19520
Diode-quad bridge circuit means
[NASA-CASE-ARC-10364-2] c33 N75-25041
NDIR gas analyzer based on absorption modulation ratios for known and unknown samples
[NASA-CASE-ARC-10802-1] c35 N75-30502
Modulated hydrogen ion flame detector
[NASA-CASE-ARC-10322-1] c35 N76-18403
Method and apparatus for compensating reflection losses in a path length modulated absorption-absorption trace gas detector
[NASA-CASE-ARC-10631-1] c74 N76-20958
Nulling device for detection of trace gases by NDIR absorption
[NASA-CASE-ARC-10760-1] c25 N76-22323
Integrated structure vacuum tube
[NASA-CASE-ARC-10445-1] c31 N76-31365
Optically selective, acoustically resonant gas detecting transducer
[NASA-CASE-ARC-10639-1] c35 N78-13400

DIX, H. G.
Demodulation system Patent
[NASA-CASE-XAC-04030] c10 N71-19472

DIXON, G. V.
Active vibration isolator for flexible bodies Patent
[NASA-CASE-LAR-10106-1] c15 N71-27169

DOBIES, E. F.
Cyclically operable optical shutter
[NASA-CASE-NPO-10758] c14 N73-14427

DOD, L. E.
Plural beam antenna
[NASA-CASE-GSC-11013-1] c09 N73-19234

DOLAND, G. D.
Method and apparatus for decoding compatible convolutional codes
[NASA-CASE-MSC-14070-1] c32 N74-32598
Phase array antenna control
[NASA-CASE-MSC-14939-1] c33 N77-19320

DONBROWSKI, B. G.
Adjustable tension wire guide Patent
[NASA-CASE-XMS-02383] c15 N71-15918

DONALDSON, R. W., JR.
Gas chromatograph injection system
[NASA-CASE-ABC-10344-1] c14 N72-21433
Gas chromatograph injection system
[NASA-CASE-ARC-10344-2] c35 N75-26334

DONNELLY, P. C.
Prevention of pressure build-up in electrochemical cells Patent
[NASA-CASE-XGS-01419] c03 N70-41864

DOWNINI, J. M.
Hydrogen fire blink detector
[NASA-CASE-MFS-15063] c14 N72-25412

DONOHUE, J. H.
Passive dual spin misalignment compensators
[NASA-CASE-GSC-11479-1] c35 N74-28097

DONOVAN, B. P.
Artificial gravity spin deployment system Patent
[NASA-CASE-XNP-02595] c31 N71-21881

DONOVAN, G.
Drying apparatus for photographic sheet material
[NASA-CASE-GSC-11074-1] c14 N73-28489

DONOVAN, B. P.
Particulate and aerosol detector
[NASA-CASE-LAB-11434-1] c35 N76-22509

DOONG, H.
Analog to digital converter Patent
[NASA-CASE-XLA-00670] c08 N71-12501
Controllable high voltage source having fast settling time
[NASA-CASE-GSC-11844-1] c33 N75-19522

DORNE, A.
Nose cone mounted heat resistant antenna Patent
[NASA-CASE-XMS-04312] c07 N71-22984

DOTSON, W. P., JR.
Digital to analog conversion apparatus
[NASA-CASE-MSC-12458-1] c08 N73-32081

DOTTS, R. L.
Thermal insulation protection means
[NASA-CASE-MSC-12737-1] c34 N77-22423

DOUGHERTY, H. B.
Rotary solenoid shutter drive assembly and rotary inertia damper and stop plate assembly
[NASA-CASE-GSC-11560-1] c33 N74-20861

DOUGHTY, R. A.
Automatic signal range selector for metering devices Patent
[NASA-CASE-XMS-06497] c14 N71-26244

DOUGLAS, J.
Process of casting heavy slips Patent
[NASA-CASE-XLE-00106] c15 N71-16076

DOUGLAS, J. L.
Maximum power point tracker Patent
[NASA-CASE-GSC-10376-1] c14 N71-27407

DOW, H. B.
Vacuum pressure molding technique
[NASA-CASE-LAR-10073-1] c37 N76-24575

DOW, H. P.
Two component bearing Patent
[NASA-CASE-XLA-00013] c15 N71-29136

DOWLER, W. L.
Solid propellant rocket motor nozzle
[NASA-CASE-NPO-11458] c28 N72-23810
Solid propellant rocket motor
[NASA-CASE-NPO-11559] c28 N73-24784

DOWNING, R. G.
Machine for forming a solar array strip
[NASA-CASE-NPO-13652-2] c37 N78-13441

DOWNS, W. R.
Transpirationally cooled heat ablation system Patent
[NASA-CASE-XMS-02677] c31 N70-42075
Method for obtaining oxygen from lunar or similar soil
[NASA-CASE-MSC-12408-1] c46 N74-13011

DOYLE, J. C.
Measuring device Patent
[NASA-CASE-XMS-01546] c14 N70-40233

DRESHFIELD, R. L.
Cobalt-base alloy
[NASA-CASE-LEW-10436-1] c17 N73-32415

DRESSER, H. S.
Multi-purpose wind tunnel reaction control model block
[NASA-CASE-MSC-19706-1] c09 N77-19077

DREXHAGE, H. G.
Injection head for delivering liquid fuel and oxidizers
[NASA-CASE-NPO-10046] c28 N72-17843

DRISCOLL, K. L.
 Means for accommodating large overstrain in lead wires
 [NASA-CASE-LAR-10168-1] c33 N74-22865
 DRUMMOND, A. S.
 Flexible back-up bar Patent
 [NASA-CASE-IMP-00722] c15 N70-40204
 DU PONT, P. S.
 Solar panel fabrication Patent
 [NASA-CASE-XNP-03413] c03 N71-26726
 DUBEY, H.
 Central spar and module joint Patent
 [NASA-CASE-XNP-02341] c15 N71-21531
 DUBOIS, B. D.
 Guide for a typewriter
 [NASA-CASE-MFS-15218-1] c37 N77-19457
 DUBUSKER, W.
 Apparatus for welding sheet material
 [NASA-CASE-XMS-01330] c37 N75-27376
 DUFFY, J. O.
 Minimal logic block encoder Patent
 [NASA-CASE-NPO-10595] c10 N71-25917
 DUNARTZ, R. A.
 Flexible, repairable, portable material for electrical connectors Patent
 [NASA-CASE-IGS-05180] c18 N71-25881
 DUNAVANT, J. C.
 Hot air balloon deceleration and recovery system Patent
 [NASA-CASE-XLA-06824-2] c02 N71-11037
 DUNN, J. G.
 Satellite interlace synchronization system
 [NASA-CASE-GSC-10390-1] c07 N72-11149
 DUNN, J. H.
 Foldable conduit Patent
 [NASA-CASE-XLE-00620] c32 N70-41579
 DUNN, S. T.
 Ellipsoidal mirror reflectometer including means for averaging the radiation reflected from the sample Patent
 [NASA-CASE-IGS-05291] c23 N71-16341
 DUNN, W. R.
 Coaxial inverted geometry transistor having buried emitter
 [NASA-CASE-ARC-10330-1] c09 N73-32112
 DUNNAVANT, W. B.
 Process for preparation of dianilinosilanes Patent
 [NASA-CASE-IMP-06409] c06 N71-23230
 Process for preparation of high-molecular-weight polyaryloxysilanes Patent
 [NASA-CASE-IMP-08674] c06 N71-28807
 DUNNING, J. W., JR.
 Slug flow magnetohydrodynamic generator
 [NASA-CASE-XLE-02083] c03 N69-39983
 DUPRAW, W. A.
 Analytical test apparatus and method for determining oxide content of alkali metal Patent
 [NASA-CASE-XLE-01997] c06 N71-23527
 DURAN, E. W.
 Subminiature insertable force transducer
 [NASA-CASE-NPO-13423-1] c33 N75-31329
 Miniature muscle displacement transducer
 [NASA-CASE-NPO-13519-1] c33 N76-19338
 DURNLEY, G. P.
 Space suit
 [NASA-CASE-MSC-12609-1] c05 N73-32012
 DUSTIN, E. O.
 Pneumatic oscillator Patent
 [NASA-CASE-LEW-10345-1] c10 N71-25899
 Shock position sensor for supersonic inlets
 [NASA-CASE-LEW-11915-1] c35 N76-14431

E

EASLEY, W. C.
 Resonant waveguide stark cell
 [NASA-CASE-LAR-11352-1] c33 N75-26245
 EASTERLING, E. F.
 Radar ranging receiver Patent
 [NASA-CASE-IMP-00748] c07 N70-36911
 Phase-locked loop with sideband rejecting properties Patent
 [NASA-CASE-IMP-02723] c07 N70-41680
 Time synchronization system utilizing moon reflected coded signals Patent
 [NASA-CASE-NPO-10143] c10 N71-26326
 Two carrier communication system with single transmitter
 [NASA-CASE-NPO-11548] c07 N73-26118
 EASTON, B. A.
 Data multiplexer using tree switching configuration
 [NASA-CASE-NPO-11333] c08 N72-22162
 Flexible computer accessed telemetry
 [NASA-CASE-NPO-11358] c07 N72-25172
 EATON, L. R.
 Heat transfer device
 [NASA-CASE-MFS-22938-1] c34 N76-18374
 EBERSOLE, T. J.
 Inverter ratio failure detector
 [NASA-CASE-NPO-13160-1] c35 N74-18090
 EBIHARA, B. T.
 Thermal radiation shielding Patent
 [NASA-CASE-XLE-03432] c33 N71-24145
 EBY, B. J.
 Thermal control system for a spacecraft modular housing
 [NASA-CASE-GSC-11018-1] c31 N73-30829
 ECKERT, E. R. G.
 Transpiration cooled turbine blade manufactured from wires Patent
 [NASA-CASE-XLE-00020] c15 N70-33226
 ECKLES, P. W.
 High-speed infrared furnace
 [NASA-CASE-XLE-10466] c17 N69-25147
 EDDINS, T. O.
 Space craft soft landing system Patent
 [NASA-CASE-IMP-02108] c31 N70-36845
 Missile launch release system Patent
 [NASA-CASE-IMP-03198] c30 N70-40352
 EDLSON, S. K.
 Latch/ejector unit Patent
 [NASA-CASE-XLA-03538] c15 N71-24897
 EDMAN, C. W.
 Electrical switching device Patent
 [NASA-CASE-NPO-10037] c09 N71-19610
 EDWARDS, G. G.
 Flight craft Patent
 [NASA-CASE-XAC-02058] c02 N71-16087
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 High impact pressure regulator Patent
 [NASA-CASE-NPO-10175] c14 N71-18625
FOGAL, G. L.
 Automatic biowaste sampling
 [NASA-CASE-MSC-14640-1] c54 N76-14804
 Fluid mass sensor for a zero gravity environment
 [NASA-CASE-MSC-14653-1] c35 N77-19385
FOHLEN, G. H.
 Intumescent paints Patent
 [NASA-CASE-ARC-10099-1] c18 N71-15469
 Transparent fire resistant polymeric structures
 [NASA-CASE-ARC-10813-1] c27 N76-16230
FONTANA, A.
 Solar sensor having coarse and fine sensing with matched preirradiated cells and method of selecting cells Patent
 [NASA-CASE-XLA-01584] c14 N71-23269
FOOTE, R. H.
 Adaptive system and method for signal generation Patent
 [NASA-CASE-GSC-11367] c10 N71-26374
FORBES, S. G.
 Apparatus for field strength measurement of a space vehicle Patent
 [NASA-CASE-XLE-00820] c14 N71-16014
FORD, A. G.
 Rock drill for recovering samples
 [NASA-CASE-XNP-07478] c14 N69-21923
 Electrically-operated rotary shutter Patent
 [NASA-CASE-XNP-00637] c14 N70-40273
 Motion restraining device
 [NASA-CASE-NPO-13619-1] c37 N78-16369
 A speed control device for a heavy duty shaft
 [NASA-CASE-NPO-14170] c37 N78-17391
FORD, F. E.
 Coulometer and third electrode battery charging circuit Patent
 [NASA-CASE-GSC-10487-1] c03 N71-24719
FORD, R. R.
 Antenna system using parasitic elements and two driven elements at 90 deg angle fed 180 deg out of phase Patent
 [NASA-CASE-XLA-00414] c07 N70-38200
FOREHAND, L.
 Solar cell mounting Patent
 [NASA-CASE-XNP-00826] c03 N71-20895
FORESTIERI, A. F.
 Method of making silicon solar cell array
 [NASA-CASE-LEW-11069-1] c44 N74-14784
 Encapsulated solar cell modules
 [NASA-CASE-LEW-12185-1] c44 N77-15490
 Solar cell shingle
 [NASA-CASE-LEW-12587-1] c44 N77-31601
FORLIFER, W. R.
 Landing gear Patent
 [NASA-CASE-XMF-01174] c02 N70-41589
FORSYTHE, A. K.
 Umbilical separator for rockets Patent
 [NASA-CASE-XNP-00425] c11 N70-38202
PORTINI, A.
 Method of electroforming a rocket chamber
 [NASA-CASE-LEW-11118-1] c20 N74-32919
 A heat exchanger and method of making
 [NASA-CASE-LEW-12441-1] c34 N75-19580
 Rocket chamber and method of making
 [NASA-CASE-LEW-11118-2] c20 N76-14191
FOSTER, J. V.
 Mechanically limited, electrically operated hydraulic valve system for aircraft controls Patent
 [NASA-CASE-XAC-00048] c02 N71-29128
 Magnetic position detection method and apparatus
 [NASA-CASE-ARC-10179-1] c21 N72-22619
FOSTER, L. E.
 Magnetomotive metal working device Patent
 [NASA-CASE-XMF-03793] c15 N71-24833
FOSTER, T.
 Variable cycle gas turbine engines
 [NASA-CASE-LEW-12916-1] c37 N78-17384
 Variable mixer propulsion cycle
 [NASA-CASE-LEW-12917-1] c07 N78-18067
FOWLER, J.
 Bit error rate measurement above and below bit rate tracking threshold
 [NASA-CASE-MSC-12743-1] c32 N77-19290
FOWLER, J. T.
 Parasitic suppressing circuit
 [NASA-CASE-ERC-10403-1] c10 N73-26228
FOX, W. E.
 Event recorder Patent
 [NASA-CASE-XLA-01832] c14 N71-21006
FRANCISCO, A. C.
 Process for applying a protective coating for salt bath brazing Patent
 [NASA-CASE-XLE-00046] c15 N70-33311
FRANCISCUS, L. C.
 Supersonic-combustion rocket
 [NASA-CASE-LEW-11058-1] c20 N74-13502
FRANK, H. A.
 Electrolytically regenerative hydrogen-oxygen fuel cell Patent
 [NASA-CASE-XLE-04526] c03 N71-11052
FRANKLIN, W. J.
 Segmented back-up bar Patent
 [NASA-CASE-XMF-00640] c15 N70-39924
 Portable alignment tool Patent
 [NASA-CASE-XMF-01452] c15 N70-41371
FRASER, A. S.
 Water system virus detection
 [NASA-CASE-MSC-16098-1] c51 N77-24755
FRAZE, R. E.
 Cryogenic cooling system Patent
 [NASA-CASE-NPO-10467] c23 N71-26654
FRAZER, E. E.
 Vacuum evaporator with electromagnetic ion steering Patent
 [NASA-CASE-NPO-10331] c09 N71-26701
 Strong thin membrane structure
 [NASA-CASE-NPO-14021-1] c17 N77-32313
FRAZIER, H. J.
 Junction range finder

[NASA-CASE-KSC-10108]	c14 N73-25461	RF controlled solid state switch	c09 N72-22202
PRECHE, J. C.		[NASA-CASE-ARC-10136-1]	
High temperature nickel-base alloy Patent		Low power electromagnetic flowmeter providing accurate zero set	
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External liquid-spray cooling of turbine blades Patent		Miniature ingestible telemeter devices to measure deep-body temperature	c52 N76-29894
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[NASA-CASE-XLE-00283]	c17 N70-36616	[NASA-CASE-ARC-11120-1]	
High temperature cobalt-base alloy Patent		PUCHS, J. C.	
[NASA-CASE-XLE-00726]	c17 N71-15644	Lightning current waveform measuring system	
High temperature cobalt-base alloy Patent		[NASA-CASE-KSC-11018-1]	c33 N77-21320
[NASA-CASE-XLE-02991]	c17 N71-16025	FUHRMEISTER, P. F.	
Nickel-base alloy containing Mo-W-Al-Cr-Ta-Zr-C-Nb-B Patent		Random function tracer Patent	
[NASA-CASE-XLE-02082]	c17 N71-16026	[NASA-CASE-XLA-01401]	c15 N71-21179
High temperature ferromagnetic cobalt-base alloy Patent		FUJIOKA, R. S.	
[NASA-CASE-XLE-03629]	c17 N71-23248	Folding structure fabricated of rigid panels	
Liquid spray cooling method Patent		[NASA-CASE-XHQ-02146]	c18 N75-27040
[NASA-CASE-XLE-00027]	c33 N71-29152	FULCHER, C. W. G.	
Method of forming superalloys		Automatic control of liquid cooling garment by cutaneous and external auditory meatus temperatures	
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Cobalt-base alloy		FULCHER, R. W.	
[NASA-CASE-LEW-10436-1]	c17 N73-32415	Low speed phaselock speed control system	
Method of heat treating a formed powder product material		[NASA-CASE-GSC-11127-1]	c09 N75-24758
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Method of forming articles of manufacture from superalloy powders		Cable restraint	
[NASA-CASE-LEW-10805-2]	c37 N74-13179	[NASA-CASE-LAR-10129-1]	c15 N73-25512
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[NASA-CASE-LEW-12270-1]	c26 N77-32280	[NASA-CASE-LAR-10129-2]	c37 N74-20063
FREDRICKSON, C. A.		Binocular device for displaying numerical information in field of view	
Energy absorption device Patent		[NASA-CASE-LAR-11782-1]	c74 N77-20882
[NASA-CASE-XNP-07848]	c15 N71-28959	FUNK, B. H., JR.	
FREEMAN, R. S.		Optical probing of supersonic flows with statistical correlation	
Air frame drag balance Patent		[NASA-CASE-MFS-20642]	c14 N72-21407
[NASA-CASE-XLA-00113]	c14 N70-33386	FURCIBITI, C. A.	
FREGGENS, R. A.		Pulse-width modulation multiplier Patent	
Thermal flux transfer system		[NASA-CASE-XER-09213]	c07 N71-12390
[NASA-CASE-NPO-12070-1]	c28 N73-32606	FURMAN, E. B.	
FRENCH, J. C.		Closed loop spray cooling apparatus	
Nickel base alloy		[NASA-CASE-LEW-11981-2]	c34 N77-32434
[NASA-CASE-LEW-10874-1]	c17 N72-22535	Closed loop spray cooling apparatus	
FRIEDICH, C. W.		[NASA-CASE-LEW-11981-1]	c31 N78-17237
Apparatus for welding sheet material		FURNER, E. L.	
[NASA-CASE-XMS-01330]	c37 N75-27376	Automated analysis of oxidative metabolites	
FRIEBEL, G. O.		[NASA-CASE-ARC-10469-1]	c25 N75-12086
Aircraft design concept		FURUNOTO, H. W.	
[NASA-CASE-LAR-11852-1]	c05 N77-15027	Optical pump and driver system for lasers	
FRIEDELL, M. V.		[NASA-CASE-ERC-10283]	c16 N72-25485
Positive isolation disconnect		FYLDER, W. P.	
[NASA-CASE-MSC-16043-1]	c37 N77-15397	Very high intensity light source using a cathode ray tube	
FRIEDEN, H. J.		[NASA-CASE-XNP-01296]	c33 N75-27250
Automated clinical system for chromosome analysis		FYMAT, A. L.	
[NASA-CASE-NPO-13913-1]	c52 N77-19750	Interferometer-polarimeter	
FRIEDERICH, J. E.		[NASA-CASE-NPO-11239]	c14 N73-12446
Biomedical radiation detecting probe Patent		Frequency scanning particle size spectrometer	
[NASA-CASE-XMS-01177]	c05 N71-19440	[NASA-CASE-NPO-13606-1]	c35 N75-19627
FRIEDRICH, E. W.		Particle size spectrometer and refractometer	
Reentry vehicle leading edge Patent		[NASA-CASE-NPO-13614-1]	c35 N75-19628
[NASA-CASE-XLA-00165]	c31 N70-33242	Forward-scatter polarimeter for determining the gaseous depolarization factor in the presence of polluting polydispersed particles	
FRIICHTENICHT, J. P.		[NASA-CASE-NPO-13756-1]	c35 N76-14434
Apparatus for handling micron size range particulate material		High resolution Fourier interferometer-spectrophotopolarimeter	
[NASA-CASE-NPO-10151]	c37 N78-17386	[NASA-CASE-NPO-13604-1]	c35 N76-31490
FRISBIE, H. F.			
Device for determining relative angular position between a spacecraft and a radiation emitting celestial body			
[NASA-CASE-GSC-11444-1]	c14 N73-28490		
FRITZEN, H., JR.			
Noncontaminating swabs			
[NASA-CASE-MFS-18100]	c15 N72-11390		
FROHLING, S. C.			
Casting propellant in rocket engine			
[NASA-CASE-LAR-11995-1]	c28 N77-10213		
FROST, J. D., JR.			
EEG sleep analyzer and method of operation Patent			
[NASA-CASE-MSC-13282-1]	c05 N71-24729		
Compressible biomedical electrode			
[NASA-CASE-MSC-13648]	c05 N72-27103		
Snap-in compressible biomedical electrode			
[NASA-CASE-MSC-14623-1]	c52 N77-28717		
FRYER, T. E.			
Telemeter adaptable for implanting in an animal Patent			
[NASA-CASE-XAC-05706]	c05 N71-12342		

G

GABROVIC, L. J.		Bismuth-lead coatings for gas bearings used in atmospheric environments and vacuum chambers Patent	
[NASA-CASE-XGS-02011]	c15 N71-20739		
GADDIS, D. B.		Inorganic solid film lubricants Patent	
[NASA-CASE-XMP-03988]	c15 N71-21403		
GADDY, E. B.		Optimum performance spacecraft solar cell system	
[NASA-CASE-GSC-10669-1]	c03 N72-20031		
GADE, D. W.		Temperature regulation circuit Patent	
[NASA-CASE-XNP-02792]	c14 N71-28958		

GAETANO, G.
Fast scan control for deflection type mass spectrometers
[NASA-CASE-LAR-10766-1] c14 N72-21432
Fast scan control for deflection type mass spectrometers
[NASA-CASE-LAR-11428-1] c35 N74-34857

GABN, R. P.
Analytical test apparatus and method for determining oxide content of alkali metal Patent
[NASA-CASE-XLE-01997] c06 N71-23527
Gels as battery separators for soluble electrode cells
[NASA-CASE-LEW-12364-1] c44 N77-22606

GAISER, E. E.
Color television systems using a single gun color cathode ray tube Patent
[NASA-CASE-ERC-10098] c09 N71-28618

GALE, G. P.
Flow rate switch
[NASA-CASE-NPO-10722] c09 N72-20199

GALLAGHER, H. E.
Construction and method of arranging a plurality of ion engines to form a cluster Patent
[NASA-CASE-XNP-02923] c28 N71-23081
High efficiency ionizer assembly Patent
[NASA-CASE-XNP-01954] c28 N71-28850

GALLO, A. J.
Rapid sync acquisition system Patent
[NASA-CASE-NPO-10214] c10 N71-26577

GARAVAGLIA, A. P.
Shoulder harness and lap belt restraint system
[NASA-CASE-ARC-10519-2] c05 N75-25915

GARBA, J. A.
Pressure seal Patent
[NASA-CASE-NPO-10796] c15 N71-27068

GARD, L. H.
Computerized system for translating a torch head
[NASA-CASE-MFS-23620-1] c37 N77-24497

GARDNER, D. E.
Wire grid forming apparatus Patent
[NASA-CASE-XLE-00023] c15 N70-33330

GARDNER, J. N.
Technique of elbow bending small jacketed transfer lines Patent
[NASA-CASE-XNP-10475] c15 N71-24679

GARDNER, M. S.
Differential pressure cell Patent
[NASA-CASE-XAC-00042] c14 N70-34816

GARDOS, M. M.
Refractory porcelain enamel passive control coating for high temperature alloys
[NASA-CASE-MFS-22324-1] c27 N75-27160

GARFELN, A.
Pressure sensitive transducers Patent
[NASA-CASE-ERC-10087] c14 N71-27334
Electricity measurement devices employing liquid crystalline materials
[NASA-CASE-ERC-10275] c26 N72-25680
Semiconductor transducer device
[NASA-CASE-ERC-10087-2] c14 N72-31446

GARMIRE, E. M.
Optical frequency waveguide Patent
[NASA-CASE-HQN-10541-1] c07 N71-26291
Laser machining apparatus Patent
[NASA-CASE-HQN-10541-2] c15 N71-27135
Optical frequency waveguide and transmission system Patent
[NASA-CASE-HQN-10541-4] c16 N71-27183
Optical frequency waveguide and transmission system
[NASA-CASE-HQN-10541-3] c23 N72-23695

GARNER, B. D.
Jet shoes
[NASA-CASE-XLA-08491] c05 N69-21380
Dynamic precession damper for spin stabilized vehicles Patent
[NASA-CASE-XLA-01989] c21 N70-34295
Attitude orientation of spin-stabilized space vehicles Patent
[NASA-CASE-XLA-00281] c21 N70-36943
Fluid pressure amplifier and system
[NASA-CASE-LAR-10869-1] c33 N74-11050
Servo valve
[NASA-CASE-LAR-11643-1] c37 N75-13268
Magnetic heading reference
[NASA-CASE-LAR-11387-1] c04 N76-20114
Magnetic heading reference
[NASA-CASE-LAR-11387-2] c04 N77-19056

GARRAHAN, M. M.
Solid state pulse generator with constant output width, for variable input width, in nanosecond range Patent
[NASA-CASE-IGS-03427] c10 N71-23029
Resettable monostable pulse generator Patent
[NASA-CASE-GSC-11139] c09 N71-27016

GARRIN, J. P., JR.
Mechanical stability augmentation system Patent
[NASA-CASE-XLA-06339] c02 N71-13422
Filtering technique based on high-frequency plant modeling for high-gain control
[NASA-CASE-LAR-12215-1] c08 N78-17070

GARWOOD, D. C.
Ionization vacuum gauge Patent
[NASA-CASE-XNP-00646] c14 N70-35666

GASTON, D. H.
Masking device Patent
[NASA-CASE-XNP-02092] c15 N70-42033

GASTON, R. P., JR.
Landing gear Patent
[NASA-CASE-XNP-01174] c02 N70-41589

GATES, D. W.
Stabilized zinc oxide coating compositions Patent
[NASA-CASE-XNP-07770-2] c18 N71-26772
Synthesis of zinc titanate pigment and coatings containing the same
[NASA-CASE-MFS-13532] c18 N72-17532
Method of preparing zinc orthotitanate pigment
[NASA-CASE-MFS-23345-1] c27 N77-30237

GATES, J. D.
Self-erecting reflector Patent
[NASA-CASE-IGS-09190] c31 N71-16102

GATES, L. E., JR.
Method for fiberizing ceramic materials Patent
[NASA-CASE-XNP-00597] c18 N71-23088

GATEWOOD, J. E.
Thin film temperature sensor and method of making same
[NASA-CASE-NPO-11775] c26 N72-28761

GATLIN, J. A.
Cartwheel satellite synchronization system Patent
[NASA-CASE-IGS-05579] c31 N71-15676
Gravity gradient attitude control system Patent
[NASA-CASE-GSC-10555-1] c21 N71-27324
Sampled data controller Patent
[NASA-CASE-GSC-10554-1] c08 N71-29033

GATTI, A.
Catalyst for growth of boron carbide single crystal whiskers
[NASA-CASE-XHQ-03903] c15 N69-21922

GAUSE, R. L.
Restraint system for ergometer
[NASA-CASE-MFS-21046-1] c14 N73-27377
Ergometer
[NASA-CASE-MFS-21109-1] c05 N73-27941
Tilting table for ergometer and for other biomedical devices
[NASA-CASE-MFS-21010-1] c05 N73-30078
Manual actuator
[NASA-CASE-MFS-21481-1] c37 N74-18127
Conductive elastomeric extensometer
[NASA-CASE-MFS-21049-1] c52 N74-27864
Ergometer calibrator
[NASA-CASE-MFS-21045-1] c35 N75-15932

GAVIRA, B. E.
Fail-safe multiple transformer circuit configuration
[NASA-CASE-NPO-11078] c09 N72-25262

GAVRILLIS, T. G.
Turnstile and flared cone UHF antenna
[NASA-CASE-LAR-10970-1] c33 N76-14372

GDULA, W. G.
Recovery of radiation damaged solar cells through thermal annealing
[NASA-CASE-IGS-04047-2] c03 N72-11062

GEBBEN, V. D.
Circuit for detecting initial systole and diastolic notch
[NASA-CASE-LEW-11581-1] c54 N75-13531

GEDWILL, M. A.
Method of protecting the surface of a substrate
[NASA-CASE-LEW-11696-1] c37 N75-13261
Duplex aluminized coatings
[NASA-CASE-LEW-11696-2] c26 N75-19408

GEE, S. W.
Terminal guidance system
[NASA-CASE-FRC-10049-1] c04 N74-13420

GEHRING, W. E.
Apparatus for purging systems handling toxic, corrosive, noxious and other fluids Patent
[NASA-CASE-XMS-01905] c12 N71-21089

GEIDEMAN, W. A., JR.
Electric arc light source having undercut recessed anode
[NASA-CASE-ARC-10266-1] c33 N75-29318

GEIER, D. J.
Shock absorbing support and restraint means Patent
[NASA-CASE-XMS-01240] c05 N70-35152

GEIPEL, D. H.
Omnidirectional acceleration device Patent
[NASA-CASE-HQN-10780] c14 N71-30265

GEISE, P. E., JR.
FM/CW radar system
[NASA-CASE-MFS-22234-1] c32 N76-33364

GELB, L. L.
Method of repairing discontinuity in fiberglass structures
[NASA-CASE-LAR-10416-1] c24 N74-30001

GELLES, R.
Wide angle long eye relief eyepiece Patent
[NASA-CASE-XMS-06056-1] c23 N71-24857

GENTER, R. E.
Electronically resettable fuse Patent
[NASA-CASE-XGS-11177] c09 N71-27001

GEORGE, T. R., JR.
Device for installing rocket engines
[NASA-CASE-MFS-19220-1] c20 N76-22296

GERDTS, J. C.
Concentric differential gearing arrangement
[NASA-CASE-ARC-10462-1] c37 N74-27901

GERINGER, H. J.
Induction furnace with perforated tungsten foil shielding Patent
[NASA-CASE-XLE-04026] c14 N71-23267

GERMANN, E. F., JR.
Radiation direction detector including means for compensating for photocell aging Patent
[NASA-CASE-XLA-00183] c14 N70-40239

GERTSHA, L. W.
Foldable conduit Patent
[NASA-CASE-XLE-00620] c32 N70-41579

GETCHELL, D. E.
Pressure garment joint Patent
[NASA-CASE-XMS-09636] c05 N71-12344

GETTELMAN, C. C.
High powered arc electrodes
[NASA-CASE-LFW-11162-1] c33 N74-12913

GIACCONI, R.
X-ray reflection collimator adapted to focus X-radiation directly on a detector Patent
[NASA-CASE-XHQ-04106] c14 N70-40240

GIANDOMENICO, A.
Millimeter wave radiometer for radio astronomy Patent
[NASA-CASE-XNP-09832] c30 N71-23723

GIANNINI, G. H.
Combination automatic-starting electrical plasma torch and gas shutoff valve
[NASA-CASE-XLE-10717] c37 N75-29426

GIBSON, F. W.
Contour surveying system Patent
[NASA-CASE-XLA-08646] c14 N71-17586

Pressure operated electrical switch responsive to a pressure decrease after a pressure increase
[NASA-CASE-LAR-10137-1] c09 N72-22204

GIFFIN, C. E.
Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump
[NASA-CASE-NPO-13663-1] c35 N77-14406

GILBERT, G. J.
Apparatus for ballasting high frequency transistors
[NASA-CASE-XGS-05003] c09 N69-24318

GILBREATH, W. P.
Electrical conductivity cell and method for fabricating the same
[NASA-CASE-ARC-10810-1] c33 N76-19339

GILCHRIST, C. E.
Signal-to-noise ratio estimating by taking ratio of mean and standard deviation of integrated signal samples Patent
[NASA-CASE-XNP-05254] c07 N71-20791

GILES, R. H. F.
Dye penetrant for surfaces subsequently contacted by liquid oxygen Patent
[NASA-CASE-XMP-02221] c18 N71-27170

GILKISON, C. B.
Linear accelerator frequency control system Patent
[NASA-CASE-XGS-05441] c10 N71-22962

GILL, W. L.
Burn rate testing apparatus
[NASA-CASE-XMS-09690] c33 N72-25913

GILLERMAN, J. B.
Water management system and an electrolytic cell therefor Patent
[NASA-CASE-MSC-10960-1] c03 N71-24718

GILLESPIE, W., JR.
Infrared scanner Patent
[NASA-CASE-XLA-00120] c21 N70-33181

Passive communication satellite Patent
[NASA-CASE-XLA-00210] c30 N70-40309

Alleviation of divergence during rocket launch Patent
[NASA-CASE-XLA-00256] c31 N71-15663

Method of making an inflatable panel Patent
[NASA-CASE-XLA-03497] c15 N71-23052

GILLETTE, B. B.
Plasma cleaning device
[NASA-CASE-MFS-22906-1] c75 N76-24001

GILLEY, G. C.
Shared memory for a fault-tolerant computer
[NASA-CASE-NPO-13139-1] c60 N76-21914

GILLEY, P. J.
Material fatigue testing system
[NASA-CASE-MFS-20673] c14 N73-20476

GILLIGAN, J. E.
Method of preparing zinc orthotitanate pigment
[NASA-CASE-MFS-23345-1] c27 N77-30237

GILMORE, W. F.
Method and apparatus for high resolution spectral analysis
[NASA-CASE-NPO-10748] c08 N72-20177

GILMAN, H. H.
Flanged major modular assembly jig
[NASA-CASE-MSC-19372-1] c39 N76-31562

GILBREATH, M. C.
Omnidirectional microwave spacecraft antenna Patent
[NASA-CASE-XLA-03114] c09 N71-22888

GILWEE, W. J., JR.
Honeycomb-laminate composite structure
[NASA-CASE-ARC-10913-1] c24 N78-15180

GIN, W.
Apparatus and method for control of a solid fueled rocket vehicle Patent
[NASA-CASE-XNP-00217] c28 N70-38181

GIORGINI, E. A.
Self-contained breathing apparatus
[NASA-CASE-MSC-14733-1] c54 N76-24900

GIOVANNETTI, A., JR.
High-temperature, high-pressure spherical segment valve Patent
[NASA-CASE-IAC-00074] c15 N70-34817

GIRALA, A. S.
Open type urine receptacle
[NASA-CASE-MSC-12324-1] c05 N72-22093

GLASER, P. E.
Apparatus for measuring thermal conductivity Patent
[NASA-CASE-XGS-01052] c14 N71-15992

GLASSEY, E. A.
Line following servosystem Patent
[NASA-CASE-XAC-00001] c15 N71-28952

GLAWE, G. E.
Enthalpy and stagnation temperature determination of a high temperature laminar flow gas stream Patent
[NASA-CASE-XLE-00266] c14 N70-34156

Sensing probe
[NASA-CASE-LFW-10281-1] c14 N72-17327

GLEKAS, L. P.
Compact solar still Patent
[NASA-CASE-XMS-04533] c15 N71-23086

GLENN, C. G.
Manual actuator
[NASA-CASE-MFS-21481-1] c37 N74-18127

Conductive elastomeric extensometer
[NASA-CASE-MFS-21049-1] c52 N74-27864

GLENN, D. C.
Method of lubricating rolling element bearings Patent
[NASA-CASE-XLE-09527] c15 N71-17688

Rolling element bearings Patent
[NASA-CASE-XLE-09527-2] c15 N71-26189

GLOBUS, R. H.
Process of forming particles in a cryogenic path
Patent
[NASA-CASE-NPO-10250] c23 N71-16212

GLONB, W. L.
Time division radio relay synchronizing system
using different sync code words for in sync
and out of sync conditions Patent
[NASA-CASE-GSC-10373-1] c07 N71-19773

Tracking receiver Patent
[NASA-CASE-XGS-08679] c10 N71-21473

GLORIA, H. R.
Ultraviolet and thermally stable polymer
compositions
[NASA-CASE-ARC-10592-1] c27 N74-21156

Ultraviolet and thermally stable polymer
compositions
[NASA-CASE-ARC-10592-2] c27 N76-32315

GOERING, R. S.
Open tube guideway for high speed air cushioned
vehicles
[NASA-CASE-LAR-10256-1] c85 N74-34672

GOLD, H. S.
Gas turbine engine fuel control
[NASA-CASE-LEW-11187-1] c28 N73-19793

Automotive gas turbine fuel control
[NASA-CASE-LEW-12785-1] c37 N77-13426

GOLDBERG, G. I.
Reaction wheel scanner Patent
[NASA-CASE-XGS-02629] c14 N71-21082

GOLDBERG, J.
Automatic fault correction system for parallel
signal channels Patent
[NASA-CASE-XNP-03263] c09 N71-18843

GOLDEN, D. P., JR.
Contourograph system for monitoring
electrocardiograms
[NASA-CASE-MSC-13407-1] c10 N72-20225

Apparatus and method for processing Korotkov
sounds
[NASA-CASE-MSC-13999-1] c52 N74-26626

GOLDMAN, G. C.
High powered arc electrodes
[NASA-CASE-LEW-11162-1] c33 N74-12913

GOLDSBERRY, R. E.
Ultraviolet and thermally stable polymer
compositions
[NASA-CASE-ARC-10592-1] c27 N74-21156

Ultraviolet and thermally stable polymer
compositions
[NASA-CASE-ARC-10592-2] c27 N76-32315

GOLDSCHMIDT, P. R.
Shear modulated fluid amplifier Patent
[NASA-CASE-MFS-10412] c12 N71-17578

GOLDSMITH, J. V.
Solar battery with interconnecting means for
plural cells Patent
[NASA-CASE-XNP-06506] c03 N71-11050

Solid state matrices
[NASA-CASE-NPO-10591] c03 N72-22041

Solar cell panels with light transmitting plate
[NASA-CASE-NPO-10747] c03 N72-22042

GOLDSTEIN, A. W.
Supersonic fan blading
[NASA-CASE-LEW-11402-1] c07 N74-28226

GOLDSTEIN, H. E.
Silica reusable surface insulation
[NASA-CASE-ARC-10721-1] c27 N76-22376

Reaction cured glass and glass coatings
[NASA-CASE-ARC-11051-1] c27 N77-10201

GOLDSTEIN, I.
Clear air turbulence detector
[NASA-CASE-MFS-21244-1] c36 N75-15028

GOLDSTEIN, R. H.
Correlation function apparatus Patent
[NASA-CASE-XNP-00746] c07 N71-21476

Method and apparatus for mapping planets
[NASA-CASE-NPO-11001] c07 N72-21118

Binary coded sequential acquisition ranging system
[NASA-CASE-NPO-11194] c08 N72-25209

Apparatus for deriving synchronizing pulses from
pulses in a single channel PCM communications
system
[NASA-CASE-NPO-11302-1] c07 N73-13149

Method and apparatus for a single channel
digital communications system
[NASA-CASE-NPO-11302-2] c32 N74-10132

Digital demodulator-correlator
[NASA-CASE-NPO-13982-1] c32 N77-24341

GOODRICH, J. A.
Locking device for turbine rotor blades Patent
[NASA-CASE-XNP-00816] c28 N71-28928

GOODWIN, P. E.
Opto-mechanical subsystem with temperature
compensation through isothermal design
[NASA-CASE-GSC-12059-1] c35 N77-27366

GOODWIN, R. A.
Spectroscope equipment using a slender
cylindrical reflector as a substitute for a
slit Patent
[NASA-CASE-IGS-08269] c23 N71-26206

GOODYER, M. J.
Stagnation pressure probe
[NASA-CASE-LAR-11139-1] c35 N74-32878

GOOKIN, R.
A system for synchronizing synthesizers of
communication systems
[NASA-CASE-GSC-12148-1] c32 N77-22314

GORDON, B. L.
Television noise reduction device
[NASA-CASE-MSC-12607-1] c32 N75-21485

GORDON, W. A.
Arc electrode of graphite with ball tip Patent
[NASA-CASE-XLE-04788] c09 N71-22987

GORELICK, D.
Arterial pulse wave pressure transducer
[NASA-CASE-GSC-11531-1] c52 N74-27566

GORSTEIN, M.
Two color horizon sensor
[NASA-CASE-ERC-10174] c14 N72-25409

GOSS, W. C.
High pulse rate high resolution optical radar
system
[NASA-CASE-NPO-11426] c07 N73-26119

GOUDY, J. R.
Capacitor power pak Patent Application
[NASA-CASE-LAR-10367-1] c03 N70-26817

GOULD, C. W.
Printed circuit board with bellows rivet
connection Patent
[NASA-CASE-XNP-05082] c15 N70-41950

GOULD, J. M.
Static inverters which sum a plurality of waves
Patent
[NASA-CASE-XNP-00663] c08 N71-18752

Acquisition and tracking system for optical radar
[NASA-CASE-MFS-20125] c16 N72-13437

GOULD, W. I., JR.
Millimeter wave antenna system Patent Application
[NASA-CASE-GSC-10949-1] c07 N71-28965

GRAAB, J. W.
Analytical test apparatus and method for
determining oxide content of alkali metal Patent
[NASA-CASE-XLE-01997] c06 N71-23527

GRABOWSKI, J. P.
Target acquisition antenna
[NASA-CASE-GSC-10064-1] c10 N72-22235

GRAFF, J.
Amino acid analysis
[NASA-CASE-NFO-12130-1] c25 N75-14844

GRAFSTEIN, D.
Fluidic-thermochromic display device Patent
[NASA-CASE-ERC-10031] c12 N71-18603

GRAHAM, O. L.
Color television system
[NASA-CASE-MSC-12146-1] c07 N72-17109

GRAHAM, R. W.
Liquid storage tank venting device for zero
gravity environment Patent
[NASA-CASE-XLE-01449] c15 N70-41646

GRAN, A. A.
Venting device for pressurized space suit helmet
Patent
[NASA-CASE-XMS-09652-1] c05 N71-26333

GRANA, D. C.
Remote water monitoring system
[NASA-CASE-LAR-11973-1] c43 N77-28563

GRANATA, R. L.
Sidereal frequency generator Patent
[NASA-CASE-XGS-02610] c14 N71-23174

GRANT, D. J.
Passively regulated water electrolysis rocket
engine Patent
[NASA-CASE-XGS-08729] c28 N71-14044

Precision thrust gage Patent
[NASA-CASE-XGS-02319] c14 N71-22965

Fluid flow meter with comparator reference means
Patent

[NASA-CASE-IGS-01331]	c14 N71-22996	Heat activated cell with alkali anode and alkali salt electrolyte Patent	
GRANT, G. E.		[NASA-CASE-LEW-11358]	c03 N71-26084
Dual wavelength scanning Doppler velocimeter		Heat activated cell Patent	
[NASA-CASE-ARC-10637-1]	c35 N75-16783	[NASA-CASE-LEW-11359]	c03 N71-28579
GRANT, M. M.		Method of making emf cell	
Spacecraft attitude sensor		[NASA-CASE-LEW-11359-2]	c03 N72-20034
[NASA-CASE-GSC-10890-1]	c21 N73-30640	GREENLEAF, J. E.	
Means for measuring the electron density gradients of the plasma sheath formed around a space vehicle Patent		Thermistor holder for skin temperature measurements	
[NASA-CASE-XLP-06232]	c25 N71-20563	[NASA-CASE-ARC-10855-1]	c52 N77-10780
Antenna design for surface wave suppression Patent		GREENWOOD, T. L.	
[NASA-CASE-XLA-10772]	c07 N71-28980	Seismic displacement transducer Patent	
GRAY, C. E.		[NASA-CASE-XMP-00479]	c14 N70-34794
Optical characteristics measuring apparatus Patent		Condition and condition duration indicator Patent	
[NASA-CASE-XNP-08840]	c23 N71-16365	[NASA-CASE-XMP-01097]	c10 N71-16058
GRAY, D. L.		GREGORY, J. W.	
Solar cell angular position transducer		Rocket motor system Patent	
[NASA-CASE-LAR-11999-1]	c35 N78-18394	[NASA-CASE-XLE-00323]	c28 N70-38505
GRAY, D. T.		Combustion chamber Patent	
Three-axis adjustable loading structure		[NASA-CASE-XLE-04857]	c28 N71-23968
[NASA-CASE-FRC-10051-1]	c35 N74-13129	Rocket thrust throttling system	
GRAY, J. L.		[NASA-CASE-LEW-10374-1]	c28 N73-13773
Automatic lightning detection and photographic system		GREGORY, T. J.	
[NASA-CASE-KSC-10728-1]	c14 N73-32319	Rotating launch device for a remotely piloted aircraft	
GRAY, V. H.		[NASA-CASE-ARC-10979-1]	c09 N77-19076
Boiler for generating high quality vapor Patent		GRIEVE, S. H.	
[NASA-CASE-XLE-00785]	c33 N71-16104	Apparatus for testing wiring harness by vibration generating means	
Ablative system		[NASA-CASE-MSC-15158-1]	c14 N72-17325
[NASA-CASE-LEW-10359]	c33 N72-25911	GRIFFIN, P. D.	
Ablative system		Device for determining the accuracy of the flare on a flared tube	
[NASA-CASE-LEW-10359-2]	c33 N73-25952	[NASA-CASE-XKS-03495]	c14 N69-39785
Space vehicle with artificial gravity and earth-like environment		Optical monitor panel Patent	
[NASA-CASE-LEW-11101-1]	c31 N73-32750	[NASA-CASE-XKS-03509]	c14 N71-23175
GRAYSON, J. E.		GRIFFIN, R. B.	
Voltage-current characteristic simulator Patent		Apparatus for conducting flow electrophoresis in the substantial absence of gravity	
[NASA-CASE-XMS-01554]	c10 N71-10578	[NASA-CASE-MFS-21394-1]	c34 N74-27744
GREBE, V. J.		GRIFFIN, W. S.	
Inductive liquid level detection system Patent		Fluid jet amplifier	
[NASA-CASE-XLE-01609]	c14 N71-10500	[NASA-CASE-XLE-03512]	c12 N69-21466
GREENE, P. J.		Fluid jet amplifier Patent	
Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system		[NASA-CASE-XLE-09341]	c12 N71-28741
[NASA-CASE-MSC-14245-1]	c18 N75-27041	GRIFFITH, G. E.	
GREEN, A. T.		High intensity heat and light unit Patent	
Method and apparatus for nondestructive testing of pressure vessels		[NASA-CASE-XLA-00141]	c09 N70-33312
[NASA-CASE-NPO-12142-1]	c38 N76-28563	GRINER, D. E.	
GREEN, E. D.		System for the measurement of ultra-low stray light levels	
Linear sawtooth voltage-wave generator employing transistor timing circuit having capacitor-zener diode combination feedback Patent		[NASA-CASE-MFS-23513-1]	c74 N77-14842
[NASA-CASE-XMS-01315]	c09 N70-41675	GRISAPPE, S. J.	
GREEN, K. A.		Method of making a diffusion bonded refractory coating Patent	
Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector		[NASA-CASE-XLE-01604-2]	c15 N71-15610
[NASA-CASE-NPO-13568-1]	c32 N76-21365	Nickel aluminate coated low alloy stainless steel	
GREEN, R. G.		[NASA-CASE-LEW-11267-1]	c17 N73-32414
Traversing probe Patent		Method of protecting the surface of a substrate	
[NASA-CASE-XPR-02007]	c12 N71-24692	[NASA-CASE-LEW-11696-1]	c37 N75-13261
Layout tool Patent		Duplex aluminized coatings	
[NASA-CASE-FRC-10005]	c15 N71-26145	[NASA-CASE-LEW-11696-2]	c26 N75-19408
Method and apparatus for attaching physiological monitoring electrodes Patent		Fused silicide coatings containing discrete particles for protecting niobium alloys	
[NASA-CASE-XPR-07658-1]	c05 N71-26293	[NASA-CASE-LEW-11179-1]	c27 N76-16229
GREEN, R. E.		GRISWOLD, R. H., JR.	
Serial digital decoder Patent		Dual output variable pitch turbopump actuation system	
[NASA-CASE-NPO-10150]	c08 N71-24650	[NASA-CASE-LEW-12419-1]	c07 N77-14025
Apparatus for deriving synchronizing pulses from pulses in a single channel PCM communications system		GROBHAN, J.	
[NASA-CASE-NPO-11302-1]	c07 N73-13149	Electric propulsion engine test chamber Patent	
Method and apparatus for a single channel digital communications system		[NASA-CASE-XLE-00252]	c11 N70-34844
[NASA-CASE-NPO-11302-2]	c32 N74-10132	GROOM, W. J.	
GREEN, W. L.		Electromagnetic mirror drive system	
Mass measuring system Patent		[NASA-CASE-XLA-03724]	c14 N69-27461
[NASA-CASE-XMS-03371]	c05 N70-42000	Variable pulse width multiplier Patent	
GREENBERG, J.		[NASA-CASE-XLA-02850]	c09 N71-20447
Combined electrolysis device and fuel cell and method of operation Patent		Annular momentum control device used for stabilization of space vehicles and the like	
[NASA-CASE-XLE-01645]	c03 N71-20904	[NASA-CASE-LAB-11051-1]	c15 N76-14158
		Magnetic suspension and pointing system	
		[NASA-CASE-LAR-11889-1]	c19 N76-18227
		Magnetic suspension and pointing system	
		[NASA-CASE-LAR-11889-2]	c35 N78-10433
		GROSE, W. L.	
		Combustion detector	
		[NASA-CASE-LAR-10739-1]	c14 N73-16484

- GROSS, C.
Method of temperature compensating semiconductor strain gages Patent
[NASA-CASE-XLA-04555-1] c14 N71-25892
Infrared detectors
[NASA-CASE-LAR-10728-1] c14 N73-12445
An electrically scanned pressure sensor module with in situ calibration capability
[NASA-CASE-LAR-12230-1] c35 N78-11370
- GROSS, W. J.
Method of fabricating an object with a thin wall having a precisely shaped slit
[NASA-CASE-LAR-10409-1] c31 N74-21059
- GROTH, W. G.
Optical inspection apparatus Patent
[NASA-CASE-INP-00462] c14 N70-34298
- GROVE, C.
Lightning current waveform measuring system
[NASA-CASE-RSC-11018-1] c33 N77-21320
- GRUBBS, T. B.
Discrete local altitude sensing device Patent
[NASA-CASE-XNS-03792] c14 N70-41812
Line cutter Patent
[NASA-CASE-XMS-04072] c15 N70-42017
Tension measurement device Patent
[NASA-CASE-XMS-04545] c15 N71-22878
Winch having cable position and load indicators Patent
[NASA-CASE-NSC-12052-1] c15 N71-24599
- GRUBER, C. L.
Method and apparatus for optical modulating a light signal Patent
[NASA-CASE-GSC-10216-1] c23 N71-26722
- GRUNBAUM, B. W.
Improvements in microelectrophoretic apparatus and process
[NASA-CASE-ARC-11121-1] c25 N78-11216
Automatic multiple-sample applicator and electrophoresis apparatus
[NASA-CASE-ARC-10991-1] c25 N78-14104
- GRUNTHAWER, P. J.
Photoelectron spectrometer with means for stabilizing sample surface potential
[NASA-CASE-NPO-13772-1] c35 N78-10429
- GUILLLOTTE, R. J.
Infrared scanner Patent
[NASA-CASE-XLA-00120] c21 N70-33181
- GUISINGER, J. E.
Starting circuit for vapor lamps and the like Patent
[NASA-CASE-INP-01058] c09 N71-12540
Variable frequency nuclear magnetic resonance spectrometer Patent
[NASA-CASE-INP-09830] c14 N71-26266
High voltage transistor amplifier with constant current load
[NASA-CASE-NPO-11023] c09 N72-17155
Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control
[NASA-CASE-NPO-11317-2] c36 N74-13205
- GUIST, L. E.
Solid medium thermal engine
[NASA-CASE-ARC-10461-1] c44 N74-33379
- GUNGLE, R. L.
Self-sealing, unbonded, rocket motor nozzle closure Patent
[NASA-CASE-XLA-02651] c28 N70-41967
- GUNTER, W. D., JR.
Multiple pass reimaging optical system
[NASA-CASE-ARC-10194-1] c23 N73-20741
Dual wavelength scanning Doppler velocimeter
[NASA-CASE-ARC-10637-1] c35 N75-16783
Schlieren system employing antiparallel reflector in the forward direction
[NASA-CASE-ARC-10971-1] c09 N76-26224
Pseudo-backscatter laser Doppler velocimeter employing antiparallel-reflector in the forward direction
[NASA-CASE-ARC-10970-1] c36 N77-25501
- GURTLEB, C. A.
Ablation sensor
[NASA-CASE-XLA-01781] c14 N69-39975
Pressurized cell micrometeoroid detector Patent
[NASA-CASE-XLA-00936] c14 N71-14996
Dual measurement ablation sensor
[NASA-CASE-LAR-10105-1] c34 N74-15652
- GUSSOW, S. S.
Pseudo-noise test set for communication system evaluation
[NASA-CASE-MPS-22671-1] c35 N75-21582
Method of and means for testing a tape record/playback system
[NASA-CASE-MPS-22671-2] c35 N77-17426
- GUSTAFSON, G. L.
Apparatus for measuring thermal conductivity Patent
[NASA-CASE-XGS-01052] c14 N71-15992
- GUTSHALL, R. L.
Star scanner
[NASA-CASE-GSC-11569-1] c89 N74-30886
- GUY, J. T., SR.
Disk pack cleaning table Patent Application
[NASA-CASE-LAR-10590-1] c15 N70-26819
- GYORGAN, C. A.
Process for applying a protective coating for salt bath brazing Patent
[NASA-CASE-XLE-00046] c15 N70-33311
Protective device for machine and metalworking tools Patent
[NASA-CASE-XLE-01092] c15 N71-22797
Extrusion die for refractory metals Patent
[NASA-CASE-XLE-06773] c15 N71-23817

H

- HABBAL, B. A.
Analog signal integration and reconstruction system Patent
[NASA-CASE-NPO-10344] c10 N71-26544
System for quantizing graphic displays
[NASA-CASE-NPO-10745] c08 N72-22164
- HABRA, J. B.
Multiple varactor frequency doubler Patent
[NASA-CASE-INP-04958-1] c10 N71-26414
- HADEN, V.
Apparatus and method for measuring the Seebeck coefficient and resistivity of materials
[NASA-CASE-NPO-11749] c14 N73-28486
Durable antistatic coating for polymethylmethacrylate
[NASA-CASE-NPO-13867-1] c27 N78-14164
- HADLAND, W. G.
Control device Patent
[NASA-CASE-XAC-10019] c15 N71-23809
Two degree inverted flexure
[NASA-CASE-ARC-10345-1] c15 N73-12488
- HADLEY, H. C., JR.
High field CdS detector for infrared radiation
[NASA-CASE-LAR-11027-1] c35 N74-18088
- HADY, W. F.
High speed, self-acting shaft seal
[NASA-CASE-LEW-11274-1] c37 N75-21631
Shaft seal assembly for high speed and high pressure applications
[NASA-CASE-LEW-11873-1] c37 N77-27404
- HAHNBER, C. L.
Peen plating
[NASA-CASE-GSC-11163-1] c15 N73-32360
Static coefficient test method and apparatus
[NASA-CASE-GSC-11893-1] c35 N76-31489
- HAUSSERMAN, W.
Velocity measurement system
[NASA-CASE-MPS-23363-1] c35 N76-33469
- HAFLE, R. S.
Digital plus analog output encoder
[NASA-CASE-GSC-12115-1] c62 N76-31946
- HAGIHARA, F. S.
Frequency to analog converter Patent
[NASA-CASE-INP-07040] c08 N71-12500
- HAGOOD, G. J., JR.
Function generator for synthesizing complex vibration mode patterns
[NASA-CASE-LAR-10310-1] c10 N73-20253
- HAINES, R. P.
Visual examination apparatus
[NASA-CASE-ARC-10329-1] c05 N73-26072
Visual examination apparatus
[NASA-CASE-RE-ARC-10329-2] c52 N76-30793
Optical instrument employing reticle having preselected visual response pattern formed thereon
[NASA-CASE-ARC-10976-1] c74 N77-22950
- HALEY, C. T.
Clock setter
[NASA-CASE-LAR-11458-1] c35 N76-16392
- HALEY, P. C.
Cavity radiometer Patent

- [NASA-CASE-XNP-08961] c14 N71-24809
HALL, D. P.
 Apparatus for measuring electric field strength on the surface of a model vehicle Patent
 [NASA-CASE-XLE-02038] c09 N71-16086
- HALL, E. D.**
 Spectroscope equipment using a slender cylindrical reflector as a substitute for a slit Patent
 [NASA-CASE-XGS-08269] c23 N71-26206
- HALL, E. H.**
 Method for determining presence of OH in magnesium oxide
 [NASA-CASE-NPO-10774] c06 N72-17095
- HALL, J. B., JR.**
 Surface roughness detector Patent
 [NASA-CASE-XLA-00203] c14 N70-34161
 Liquid waste feed system
 [NASA-CASE-LAR-10365-1] c05 N72-27102
 Automatic liquid inventory collecting and dispensing unit
 [NASA-CASE-LAR-11071-1] c35 N75-19611
- HALL, J. P., JR.**
 Illumination system including a virtual light source Patent
 [NASA-CASE-HQN-10781] c23 N71-30292
- HALL, J. H.**
 High powered arc electrodes
 [NASA-CASE-LFW-11162-1] c33 N74-12913
- HALLAM, K. L.**
 Image tube
 [NASA-CASE-GSC-11602-1] c33 N74-21850
- HALLBERG, F. C.**
 Turn on transient limiter Patent
 [NASA-CASE-GSC-10413] c10 N71-26531
- HALLLOCK, J. W.**
 Multiple hologram recording and readout system Patent
 [NASA-CASE-ERC-10151] c16 N71-29131
- HALLPERN, W.**
 Adjustable chamfering tool
 [NASA-CASE-NPO-10857-1] c37 N77-22478
- HALLPERT, G.**
 Frangible electrochemical cell
 [NASA-CASE-XGS-10010] c03 N72-15986
- HAMLET, J. F.**
 Automatic quadrature control and measuring system
 [NASA-CASE-NFS-21660-1] c35 N74-21017
 LC-oscillator with automatic stabilized amplitude via bias current control
 [NASA-CASE-NFS-21698-1] c33 N74-26732
- HAMMACK, J. B.**
 Space capsule Patent
 [NASA-CASE-XLA-00149] c31 N70-37938
 Space capsule Patent
 [NASA-CASE-XLA-01332] c31 N71-15664
- HAMMOND, A. D.**
 Variable sweep aircraft Patent
 [NASA-CASE-XLA-03659] c02 N71-11041
- HANCHEY, K. K.**
 Device for preventing high voltage arcing in electron beam welding Patent
 [NASA-CASE-XNP-08522] c15 N71-29486
- HAND, P. J.**
 Temperature compensated digital inertial sensor
 [NASA-CASE-NPO-13044-1] c35 N74-15094
- HANKINSON, T. W. E.**
 Fatigue-resistant shear pin
 [NASA-CASE-XLA-09122] c15 N69-27505
- HANNA, H. F.**
 Dual polarity full wave dc motor drive Patent
 [NASA-CASE-XNP-07477] c09 N71-26092
 Event sequence detector
 [NASA-CASE-NPO-11703-1] c10 N73-32144
 High isolation RF signal selection switches
 [NASA-CASE-NPO-13081-1] c33 N74-22814
- HANSEN, D. O.**
 Particle parameter analyzing system
 [NASA-CASE-XLE-06094] c33 N78-17293
- HANSEN, G. E., JR.**
 Automatic vehicle location system
 [NASA-CASE-NPO-11850-1] c32 N74-12912
 Vehicle locating system utilizing AM broadcasting station carriers
 [NASA-CASE-NPO-13217-1] c32 N75-26194
- HANSEN, I. G.**
 Flow angle sensor and read out system Patent
 [NASA-CASE-XLE-04503] c14 N71-24864
- HANSEN, S.**
 Thrust dynamometer Patent
 [NASA-CASE-XLE-00702] c14 N70-40203
 Method of making screen by casting Patent
 [NASA-CASE-XLE-00953] c15 N71-15966
 Fluid flow control valve Patent
 [NASA-CASE-XLE-00703] c15 N71-15967
 Thrust dynamometer Patent
 [NASA-CASE-XLE-05260] c14 N71-20429
- HANSON, M. P.**
 Turbo-machine blade vibration damper Patent
 [NASA-CASE-XLE-00155] c28 N71-29154
- HANSON, P. W.**
 Lift balancing device
 [NASA-CASE-LAR-10348-1] c11 N73-12264
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HARRISON, E. S.
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HARRISON, F. L.
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HARRISON, R. G., JR.
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HARSTAD, K. G.
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HARTENSTEIN, R. G.
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HARVEY, W. D.
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HATCH, J. B.
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HATCHER, W. M.
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HAYNES, D. P.
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HAYNOS, J. G.
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 HILLBORN, E. H.
 Color television systems using a single gun
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 Drift compensation circuit for analog to digital
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 Snap-in compressible biomedical electrode
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 Thermal compensator for closed-cycle helium
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 HILTON, G. E.
 Position location and data collection system and
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 HINCHLIGHT, R. H.
 High-temperature, high-pressure spherical
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 [NASA-CASE-XAC-00074] c15 N70-34817
 HIRAYAMA, C.
 Glass-to-metal seals comprising relatively high
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 HIRSHFIELD, S. H.
 Gas liquefaction and dispensing apparatus Patent
 [NASA-CASE-NPO-10070] c15 N71-27372
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 [NASA-CASE-NPO-10998-1] c06 N73-32029
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 Automatic real-time pair-feeding system for
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 [NASA-CASE-ARC-10302-1] c51 N74-15778
 HOBART, H. F.
 Liquid flow sight assembly Patent
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 HOBBS, A. J.
 Method and apparatus for determining the
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 Unfurlable structure including coiled strips
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 HOCHHAIR, E. S.
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 Apparatus for remote handling of materials
 [NASA-CASE-LAR-10634-1] c37 N74-18123
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 Hingeless helicopter rotor with improved stability
 [NASA-CASE-ARC-10807-1] c05 N77-17029
 HOFFLER, G. W.
 Apparatus and method for processing Korotkov
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 [NASA-CASE-MSC-13999-1] c52 N74-26626
 A logic-controlled occlusive cuff system
 [NASA-CASE-MSC-14836-1] c52 N76-27839
 HOFFMAN, D. G.
 Light detection instrument Patent
 [NASA-CASE-XGS-05534] c23 N71-16355
 HOFFMAN, E. L.
 Flexible foam erectable space structures Patent
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 Gravity gradient attitude control system Patent
 [NASA-CASE-GSC-10555-1] c21 N71-27324
 HOFFMAN, I. S.
 Impact energy absorber Patent
 [NASA-CASE-XLA-01530] c14 N71-23092
 Self-supporting strain transducer
 [NASA-CASE-LAR-11263-1] c35 N75-33369
 Miniature biaxial strain transducer
 [NASA-CASE-LAR-11648-1] c35 N77-14407
 HOFFMAN, L. A.
 Compensating bandwidth switching transients in
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 [NASA-CASE-XNP-01107] c10 N71-28859
 HOFFMAN, T. E.
 Tunable cavity resonator with ramp shaped supports
 [NASA-CASE-HQN-10790-1] c36 N74-11313

HOHL, P.
Volumetric direct nuclear pumped laser
[NASA-CASE-LAR-12183-1] c36 N77-21424

HOKLO, K. H.
Welding blades to rotors
[NASA-CASE-LEW-10533-1] c15 N73-28515

HOLDEN, G. R.
Balanced bellows spirometer
[NASA-CASE-XAR-01547] c05 N69-21473

HOLDBERGER, O. C.
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HOLDREN, R. T., III
Radar calibration sphere
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HOLES, J. K.
Digital second-order phase-locked loop
[NASA-CASE-NPO-11905-1] c33 N74-12887

HOLESKI, D. E.
Apparatus for absorbing and measuring power Patent
[NASA-CASE-XLE-00720] c14 N70-40201

HOLKO, K. H.
Enhanced diffusion welding
[NASA-CASE-LEW-11388-1] c15 N73-32358
Apparatus for welding blades to rotors
[NASA-CASE-LEW-10533-2] c37 N74-11300
Diffusion welding in air
[NASA-CASE-LEW-11387-1] c37 N74-18128
Diffusion welding
[NASA-CASE-LEW-11388-2] c37 N74-21055

HOLLAHAN, J. R.
Method of preparing water purification membranes
[NASA-CASE-ARC-10643-1] c25 N75-12087
Water purification process
[NASA-CASE-ARC-10643-2] c51 N75-13506
Oxygen post-treatment of plastic surfaces coated
with plasma polymerized silicon-containing
monomers
[NASA-CASE-ARC-10915-2] c27 N77-20256
Abrasion resistant coatings for plastic surfaces
[NASA-CASE-ARC-10915-3] c24 N77-24200

HOLLAND, V. B.
Signal conditioning circuit apparatus
[NASA-CASE-ARC-10388-1] c33 N75-19518

HOLLANDER, J.
Polyurethanes of fluorine containing
polycarbonates
[NASA-CASE-MFS-10512] c06 N73-30099
Highly fluorinated polymers
[NASA-CASE-MFS-11492] c06 N73-30102

HOLLENAN, E. C.
Three axis controller Patent
[NASA-CASE-XFR-00181] c21 N70-33279

HOLLENBAUGH, B. C.
Position location system and method Patent
[NASA-CASE-GSC-10087-2] c21 N71-13958
Position location and data collection system and
method Patent
[NASA-CASE-GSC-10083-1] c30 N71-16090
Traffic control system and method Patent
[NASA-CASE-GSC-10087-1] c02 N71-19287
Position location system and method
[NASA-CASE-GSC-10087-3] c07 N72-12080
Doppler compensation by shifting transmitted
object frequency within limits
[NASA-CASE-GSC-10087-4] c07 N73-20174

HOLLEY, L. D.
Automatic lightning detection and photographic
system
[NASA-CASE-KSC-10728-1] c14 N73-32319
Microcomputerized electric field meter
diagnostic and calibration system
[NASA-CASE-KSC-11035-1] c33 N77-20343
Digital automatic gain amplifier
[NASA-CASE-KSC-11008-1] c33 N77-21321

HOLLIDAY, H. L.
Precision alignment apparatus for cutting a
workpiece
[NASA-CASE-LAR-11658-1] c37 N77-14478

HOLLIS, B. B.
Method of construction of a multi-cell solar array
[NASA-CASE-MFS-23540-1] c44 N78-17468

HOLLIS, B. R., JR.
Multilevel metallization method for fabricating
a metal oxide semiconductor device
[NASA-CASE-MFS-23541-1] c33 N77-27308

HOLMAN, E. V.
Latching mechanism Patent
[NASA-CASE-XMS-03745] c15 N71-21076

HOLMES, E. K.
Inflatable transpiration cooled nozzle
[NASA-CASE-MFS-20619] c28 N72-11708

HOLMES, E. K.
Velocity limiting safety system Patent
[NASA-CASE-XLA-07473] c15 N71-24895

HOLMES, L., JR.
Pulser for making navigational computations
[NASA-CASE-IXP-01458] c04 N78-17031

HOLMES, R. F.
Catalyst cartridge for carbon dioxide reduction
unit
[NASA-CASE-LAR-10551-1] c25 N74-12813
Heat exchanger
[NASA-CASE-MFS-22991-1] c34 N77-10463

HOLMES, S. J.
Ultraviolet filter
[NASA-CASE-IXP-02340] c23 N69-24332

HOLMES, T. H.
Vibration damping system Patent
[NASA-CASE-XMS-01620] c23 N71-15673

HOLMES, W. T.
Lifting body Patent Application
[NASA-CASE-PRC-10063] c01 N71-12217

HOLMSTROM, F. E.
Shielded cathode mode bulk effect devices
[NASA-CASE-ERC-10119] c26 N72-21701

HOLT, H. H.
Transient-compensated SCR inverter
[NASA-CASE-XLA-08507] c09 N69-39984
SCR blocking pulse gate amplifier Patent
[NASA-CASE-XLA-07497] c09 N71-12514

HOLT, W. I.
Scan converting video tape recorder
[NASA-CASE-NPO-10166-1] c07 N73-22076
Scan converting video tape recorder
[NASA-CASE-NPO-10166-2] c35 N76-16391
Electromagnetic transducer recording head having
a laminated core section and tapered gap
[NASA-CASE-NPO-10711-1] c35 N77-21392

HOLTZE, R. F.
Coating process
[NASA-CASE-IXP-06508] c18 N69-39895

HOLWAY, R. P.
Model launcher for wind tunnels Patent
[NASA-CASE-IXP-03578] c11 N71-23030

HORKES, R. J.
Multiparameter vision testing apparatus
[NASA-CASE-MSC-13601-2] c54 N75-27759

HONEY, R. W.
Optimum predetection diversity receiving system
Patent
[NASA-CASE-XGS-00740] c07 N71-23098

HONEYCUTT, L., III
Thermal shock and erosion resistant tantalum
carbide ceramic material
[NASA-CASE-LAR-11902-1] c27 N78-17206

HONG, J. P.
Real time analysis of voiced sounds
[NASA-CASE-NPO-13465-1] c32 N76-31372

HONNELL, H. A.
Automatic frequency control for FM transmitter
[NASA-CASE-MFS-21540-1] c32 N74-19790
Isolated output system for a class D
switching-mode amplifier
[NASA-CASE-MFS-21616-1] c33 N75-30429
Frequency modulated oscillator
[NASA-CASE-MFS-23181-1] c33 N77-17351

HOOD, R. T.
Hall current measuring apparatus having a series
resistor for temperature compensation Patent
[NASA-CASE-XAC-01662] c14 N71-23037

HOOP, J. H.
Method and apparatus for nondestructive testing
[NASA-CASE-MFS-21233-1] c38 N74-15395
Ultrasonic bone densitometer
[NASA-CASE-MFS-20994-1] c35 N75-12271

HOOPER, C. D.
Extensometer Patent
[NASA-CASE-IXP-04680] c15 N71-19489

HOOVER, R. B.
Collimator of multiple plates with axially
aligned identical random arrays of apertures
[NASA-CASE-MFS-20546-2] c14 N73-30389
Automatic lightning detection and photographic
system

[NASA-CASE-KSC-10728-1] c14 N73-32319
 Three mirror glancing incidence system for X-ray telescope
 [NASA-CASE-MFS-21372-1] c74 N74-27866
 Multiplate focusing collimator
 [NASA-CASE-MFS-20932-1] c35 N75-19616

HOOPER, R. J.
 Extrusion die for refractory metals Patent
 [NASA-CASE-XLE-06773] c15 N71-23817

HOPKINS, P. B.
 Differential phase shift keyed communication system
 [NASA-CASE-MSC-14065-1] c32 N74-26654
 Differential phase shift keyed signal resolver
 [NASA-CASE-MSC-14066-1] c33 N74-27705
 Apparatus and method for stabilized phase detection for binary signal tracking loops
 [NASA-CASE-MSC-16461-1] c32 N78-15331

HOPKINS, V.
 Inorganic solid film lubricants Patent
 [NASA-CASE-XMF-03988] c15 N71-21403

HOPPING, R. L.
 Landing gear Patent
 [NASA-CASE-XMF-01174] c02 N70-41589

HORNE, W. B.
 Aircraft wheel spray drag alleviator Patent
 [NASA-CASE-XLA-01583] c02 N70-36825

HORNBER, J. L.
 Photographic film restoration system
 [NASA-CASE-MSC-12448-1] c14 N72-20394
 Optical noise suppression device and method
 [NASA-CASE-MSC-12640-1] c74 N76-31998

HORTON, D. B.
 Instrument support with precise lateral adjustment Patent
 [NASA-CASE-XMF-00480] c14 N70-39898

HORTON, J. C.
 Method of making impurity-type semiconductor electrical contacts Patent
 [NASA-CASE-XMF-01016] c26 N71-17818

HORTON, R. L.
 Method and apparatus for mapping planets
 [NASA-CASE-NPO-11001] c07 N72-21118

HOSETHIEN, B. B.
 Adaptive tracking notch filter system Patent
 [NASA-CASE-XMF-01892] c10 N71-22986

HOTZ, G. M.
 Soil penetrometer
 [NASA-CASE-XNP-05530] c14 N73-32321
 Burrowing apparatus
 [NASA-CASE-XNP-07169] c15 N73-32362

HOUCK, W. B.
 Voltage dropout sensor Patent
 [NASA-CASE-KSC-10020] c10 N71-27338
 Ripple indicator
 [NASA-CASE-KSC-10162] c09 N72-11225
 Signal conditioner test set
 [NASA-CASE-KSC-10750-1] c35 N75-12270

HOUSEMAN, J.
 Hydrogen rich gas generator
 [NASA-CASE-NPO-13342-1] c37 N76-16446
 Hydrogen-rich gas generator
 [NASA-CASE-NPO-13464-1] c44 N76-18642
 Hydrogen rich gas generator
 [NASA-CASE-NPO-13342-2] c44 N76-29700
 Hydrogen rich gas generator
 [NASA-CASE-NPO-13464-2] c44 N76-29704
 Hydrogen-rich gas generator
 [NASA-CASE-NPO-13560-1] c44 N77-10636
 Combustion engine
 [NASA-CASE-NPO-13671-1] c37 N77-31497

HOWARD, R. A.
 Soil penetrometer
 [NASA-CASE-XNP-05530] c14 N73-32321
 Burrowing apparatus
 [NASA-CASE-XNP-07169] c15 N73-32362

HOWARD, P. S.
 Zero gravity shadow shield aligner
 [NASA-CASE-KSC-10622-1] c31 N72-21893
 Geysering inhibitor for vertical cryogenic transfer pipe
 [NASA-CASE-KSC-10615] c15 N73-12486
 Floating baffle to improve efficiency of liquid transfer from tanks
 [NASA-CASE-KSC-10639] c15 N73-26472
 Zero gravity liquid transfer screen
 [NASA-CASE-KSC-10626] c14 N73-27378

HOWARD, J. C.
 Means for suppressing or attenuating bending notion of elastic bodies Patent
 [NASA-CASE-XAC-05632] c32 N71-23971
 G-load measuring and indicator apparatus
 [NASA-CASE-ARC-10806] c06 N74-27872
 G-load measuring and indicator apparatus
 [NASA-CASE-ARC-10806-1] c35 N75-29381

HOWARD, P. W.
 Apparatus for reducing aerodynamic noise in a wind tunnel
 [NASA-CASE-MFS-23099-1] c09 N76-23273

HOWARD, W. D.
 Method and device for detecting voids in low density material Patent
 [NASA-CASE-MFS-20044] c14 N71-28993

HOWARD, W. H.
 Skeletal stressing method and apparatus Patent
 [NASA-CASE-ARC-10100-1] c05 N71-24738
 Programmable physiological infusion
 [NASA-CASE-ARC-10447-1] c52 N74-22771
 Tread drum for animals
 [NASA-CASE-ARC-10917-1] c37 N76-20485

HOWARTH, J. T.
 Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant
 [NASA-CASE-MSC-14331-1] c27 N76-24405
 Flame retardant elastomeric compositions
 [NASA-CASE-MSC-14331-3] c27 N76-24409
 Flame retardant spandex type polyurethanes
 [NASA-CASE-MSC-14331-2] c27 N78-17213

HOWE, T. L.
 Strain gauge ambiguity sensor for segmented mirror active optical system
 [NASA-CASE-MFS-20506-1] c35 N75-12273

HOWELL, J. B.
 Device for directionally controlling electromagnetic radiation Patent
 [NASA-CASE-XLE-01716] c09 N70-40234

HOWELL, W. B.
 Fringe counter for interferometers Patent
 [NASA-CASE-LAR-10204] c14 N71-27215
 Star image motion compensator
 [NASA-CASE-LAR-10523-1] c14 N72-22444

HOWLAND, B. T.
 High pressure air valve Patent
 [NASA-CASE-MSC-11010] c15 N71-19485

HOYT, R. F.
 In situ transfer standard for ultrahigh vacuum gage calibration
 [NASA-CASE-LAR-10862-1] c35 N74-15092

HRACH, F. J.
 Capacitor and method of making same Patent
 [NASA-CASE-LEW-10364-1] c09 N71-13522

HRON, R. L.
 Load current sensor for a series pulse width modulated power supply
 [NASA-CASE-GSC-10656-1] c09 N72-25249

HRUBEY, R. J.
 Microwave flaw detector Patent
 [NASA-CASE-ARC-10009-1] c15 N71-17822
 Transient video signal recording with expanded playback Patent
 [NASA-CASE-ARC-10003-1] c09 N71-25866
 Method and apparatus for swept-frequency impedance measurements of welds
 [NASA-CASE-ARC-10176-1] c15 N72-21464
 Coaxial inverted geometry transistor having buried emitter
 [NASA-CASE-ARC-10330-1] c09 N73-32112
 Twin-capacitive shaft angle encoder with analog output signal
 [NASA-CASE-ARC-10897-1] c33 N77-31404

HRYNIEWICZ, B.
 Vehicle for use in planetary exploration
 [NASA-CASE-NPO-11366] c11 N73-26238

HSU, G. C.
 Aldehyde-containing urea-absorbing polysaccharides
 [NASA-CASE-NPO-13620-1] c27 N77-30236

HSU, L. C.
 Catalytic trimerization of aromatic nitriles and triaryl-s-triazine ring cross-linked high temperature resistant polymers and copolymers made thereby
 [NASA-CASE-LEW-12053-2] c23 N77-32244
 Trimerization of aromatic nitriles
 [NASA-CASE-LEW-12053-1] c27 N78-15276

HSU, Y.-Y.
 Slug flow magnetohydrodynamic generator
 [NASA-CASE-XLE-02083] c03 N69-39983

HUBBARD, W. P.
Digital demodulator-correlator
[NASA-CASE-NPO-13982-1] c32 N77-24341

HUBER, C. S.
Modification of the physical properties of
freeze-dried rice
[NASA-CASE-MSC-13540-1] c05 N72-33096

HUBER, W. C.
Hand-held self-maneuvering unit Patent
[NASA-CASE-XMS-05304] c05 N71-12336
Inflatable tether Patent
[NASA-CASE-XMS-10993] c15 N71-28936
Foldable construction block
[NASA-CASE-MSC-12233-1] c15 N72-25454
Foldable construction block
[NASA-CASE-MSC-12233-2] c32 N73-13921
Fluid valve assembly
[NASA-CASE-MSC-12731-1] c37 N76-26511

HUDIS, M.
Preparation of dielectric coatings of variable
dielectric constant by plasma polymerization
[NASA-CASE-ARC-10892-2] c27 N77-17245

HUDOCK, R. J.
Reference apparatus for medical ultrasonic
transducer
[NASA-CASE-ARC-10753-1] c54 N75-27760

HUDSON, O. K.
Gravimeter Patent
[NASA-CASE-XMF-05844] c14 N71-17587

HUDSPETH, T.
Phase demodulation system with two phase locked
loops Patent
[NASA-CASE-XNP-00777] c10 N71-19469

HUELSMAN, L. P.
RC networks and amplifiers employing the same
[NASA-CASE-YAC-05462-2] c10 N72-17171

HUFF, R. G.
Apparatus for sensing temperature
[NASA-CASE-XLE-05230] c14 N72-27410
Method of making apparatus for sensing temperature
[NASA-CASE-XLE-05230-2] c14 N73-13417
Jet exhaust noise suppressor
[NASA-CASE-LEW-11286-1] c07 N74-27490

HUFFAKER, R. M.
Laser Doppler system for measuring three
dimensional vector velocity Patent
[NASA-CASE-MFS-20386] c21 N71-19212
Clear air turbulence detector
[NASA-CASE-MFS-21244-1] c36 N75-15028
Focused laser Doppler velocimeter
[NASA-CASE-MFS-22178-1] c35 N77-10493
Wind measurement system
[NASA-CASE-MFS-23362-1] c47 N77-10753

HUGGINS, C. T.
Solid state television camera system Patent
[NASA-CASE-XMP-06092] c07 N71-24612

HUGHES, B. C.
Air bearing Patent
[NASA-CASE-XMP-00339] c15 N70-39896

HUGHES, D. B.
Fast scan control for deflection type mass
spectrometers
[NASA-CASE-LAR-10766-1] c14 N72-21432
Fast scan control for deflection type mass
spectrometers
[NASA-CASE-LAR-11428-1] c35 N74-34857

HUGHES, F. M.
Meteoroid detector
[NASA-CASE-LAR-10483-1] c14 N73-32327

HUMBERT, J. E.
Automatic real-time pair-feeding system for
animals
[NASA-CASE-ARC-10302-1] c51 N74-15778

HUMENIK, F. M.
Gas turbine combustor Patent
[NASA-CASE-LEW-12086-1] c28 N71-28915

HUMES, D. H.
Impact measuring technique
[NASA-CASE-LAR-10913] c14 N72-16282

HUMMER, B. F.
Camera arrangement
[NASA-CASE-GSC-12032-2] c35 N76-19408

HUMPHREY, H.
Process for purification of waste water produced
by a Kraft process pulp and paper mill
[NASA-CASE-NPO-13847-2] c85 N77-17949

HUNGERFORD, W. J.
Conforming polisher for aspheric surface of
revolution Patent
[NASA-CASE-XGS-02884] c15 N71-22705

HUNKELER, R. E.
Foamed in place ceramic refractory insulating
material Patent
[NASA-CASE-XGS-02435] c18 N71-22998

HUNT, G. B.
System for the measurement of ultra-low stray
light levels
[NASA-CASE-MFS-23513-1] c74 N77-14842

HUNT, J. G.
Method of hydrostatically extruding refractory
materials
[NASA-CASE-NPO-10811] c15 N71-34425
Extrusion can
[NASA-CASE-NPO-10812] c15 N73-13464

HUNT, S. R., JR.
Multiparameter vision testing apparatus
[NASA-CASE-MSC-13601-2] c54 N75-27759

HUNTER, R. E.
Method and apparatus for neutralizing potentials
induced on spacecraft surfaces
[NASA-CASE-GSC-11963-1] c33 N77-10429

HUNTRESS, W. T.
Ion and electron detector for use in an ICR
spectrometer
[NASA-CASE-NPO-13479-1] c35 N77-10492

HURD, W. A.
System for the measurement of ultra-low stray
light levels
[NASA-CASE-MFS-23513-1] c74 N77-14842

HURD, W. J.
Digital filter for reducing sampling jitter in
digital control systems Patent
[NASA-CASE-NFO-11088] c08 N71-29034
Transition tracking bit synchronization system
[NASA-CASE-NPO-10844] c07 N72-20140
Digital quasi-exponential function generator
[NASA-CASE-NPO-11130] c08 N72-20176
Code regenerative clean-up loop transponder for
a mu-type ranging system
[NASA-CASE-NPO-11707] c07 N73-25161

HURSTA, W. W.
A logic-controlled occlusive cuff system
[NASA-CASE-MSC-14836-1] c52 N76-27839

HUSAIN-ABIDI, A. S.
Optical data processing using paraboloidal
mirror segments
[NASA-CASE-GSC-11296-1] c23 N73-30666

HUSCHKE, E. G., JR.
Method of joining aluminum to stainless steel
Patent
[NASA-CASE-MFS-07369] c15 N71-20443
Brazing alloy composition
[NASA-CASE-XMF-06053] c26 N75-27126
Brazing alloy
[NASA-CASE-XNP-03878] c26 N75-27127

HUSMANN, O. K.
Multilayer porous ionizer Patent
[NASA-CASE-XNP-04338] c17 N71-23046

HUSSEY, M. W.
Filter regeneration systems
[NASA-CASE-MSC-14273-1] c34 N75-33342

HUTCHINSON, W. D.
Manually actuated heat pump
[NASA-CASE-NPO-10677] c05 N72-11084

HUTCHINSON, J. J.
Trifunctional alcohol
[NASA-CASE-NPO-10714] c06 N69-31244
Novel polycarboxylic prepolymeric materials and
polymers thereof Patent
[NASA-CASE-NPO-10596] c06 N71-25929

HUTTO, R. J.
Radiation sensitive solid state switch
[NASA-CASE-NPO-10817-1] c08 N73-30135

HYNER, R. L.
Audio signal processor Patent
[NASA-CASE-MSC-12223-1] c07 N71-26181

I-LECHAO, J.
Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-1] c54 N76-22914

IANNINI, A. A.
Pressure sensitive transducers Patent
[NASA-CASE-ERC-10087] c14 N71-27334
Semiconductor transducer device
[NASA-CASE-ERC-10087-2] c14 N72-31446

IANNOBE, M.
 Preparation of heterocyclic block copolymer from
 perfluoroalkylene oxide alpha,
 omega-diamido oximes
 [NASA-CASE-ABC-11060-1] c27 N78-10292

ICELAND, W. F.
 Grain refinement control in TIG arc welding
 [NASA-CASE-MSC-19095-1] c37 N75-19683

IDEN, R. B.
 Method for determining presence of OH in
 magnesium oxide
 [NASA-CASE-NPO-10774] c06 N72-17095

IGENBERGS, E. B.
 Self-energized plasma compressor
 [NASA-CASE-MPS-22145-1] c75 N75-13625
 Two stage light gas-plasma projectile accelerator
 [NASA-CASE-MPS-22287-1] c75 N76-14931
 Self-energized plasma compressor
 [NASA-CASE-MPS-22145-2] c75 N76-17951

IGOE, W. B.
 Dynamic vibration absorber Patent
 [NASA-CASE-LAR-10083-1] c15 N71-27006

ILES, P. A.
 Method for producing a solar cell having an
 integral protective covering
 [NASA-CASE-XGS-04531] c03 N69-24267
 Method of coating solar cell with borosilicate
 glass and resultant product
 [NASA-CASE-GSC-11514-1] c03 N72-24037

ILLG, W.
 Hydraulic grip Patent
 [NASA-CASE-XLA-05100] c15 N71-17696
 Light shield and infrared reflector for fatigue
 testing Patent
 [NASA-CASE-XLA-01782] c14 N71-26136

INBOLDI, E.
 Tracking receiver Patent
 [NASA-CASE-XGS-08679] c10 N71-21473

IMIG, L. A.
 Anti-buckling fatigue test assembly
 [NASA-CASE-LAR-10426-1] c09 N74-19528

INLAY, E. H.
 Binary to binary-coded-decimal converter Patent
 [NASA-CASE-XNP-00432] c08 N70-35423

INGEBLO, R. D.
 Splash/groove fuel injector
 [NASA-CASE-LEW-12417-1] c07 N76-22198

INGHAM, J. D.
 Dual membrane, hollow fiber fuel cell
 [NASA-CASE-NPO-13732-1] c44 N77-19581

INGHAM, K. T.
 Locking device for turbine rotor blades Patent
 [NASA-CASE-XNP-00816] c28 N71-28928

IRICK, S. C.
 Ejectable underwater sound source recovery
 assembly
 [NASA-CASE-LAR-10595-1] c35 N74-16135

IBONS, A. S.
 Heat sterilizable patient ventilator
 [NASA-CASE-NPO-13313-1] c54 N75-27761

IRWIN, A. S.
 Drilled ball bearing with a one piece
 anti-tipping cage assembly
 [NASA-CASE-LEW-11925-1] c37 N75-31446

IRWIN, K. S.
 Controlled visibility device for an aircraft
 Patent
 [NASA-CASE-XPR-04147] c11 N71-10748

IRWIN, T. P.
 Leading edge protection for composite blades
 [NASA-CASE-LEW-12550-1] c24 N77-19170

ISLEY, W. C.
 Heated porous plug microthruster
 [NASA-CASE-GSC-10640-1] c28 N72-18766

IVES, R. B.
 Computerized system for translating a torch head
 [NASA-CASE-MPS-23620-1] c37 N77-24497

IWASAKI, N.
 Control device Patent
 [NASA-CASE-XAC-10019] c15 N71-23809

JACK, J. R.
 Electro-thermal rocket Patent
 [NASA-CASE-XLE-00267] c28 N70-33356
 Electrothermal rockets having improved heat
 exchangers Patent
 [NASA-CASE-XLE-01783] c28 N70-34175

JACKSON, C. H., JR.
 Wind tunnel model and method
 [NASA-CASE-LAR-10812-1] c09 N74-17955

JACKSON, K. R.
 Optical alignment system Patent
 [NASA-CASE-XNP-02029] c14 N70-41955

JACKSON, L. R.
 Techniques for insulating cryogenic fuel
 containers Patent
 [NASA-CASE-XLA-01967] c31 N70-42015
 Structural panel
 [NASA-CASE-LAR-11052-1] c32 N73-13929

JACKSON, M. R.
 Directionally solidified eutectic gamma plus
 beta nickel-base superalloys
 [NASA-CASE-LEW-12906-1] c26 N77-32279
 Directionally solidified eutectic gamma-gamma
 nickel-base superalloys
 [NASA-CASE-LEW-12905-1] c26 N78-18183

JACOB, D. S.
 Pressure modulating valve
 [NASA-CASE-MSC-14905-1] c37 N77-28487

JACOBS, I. M.
 Data compression system
 [NASA-CASE-XNP-09785] c08 N69-21928

JACOBS, R. B.
 Densitometer Patent
 [NASA-CASE-XLE-00688] c14 N70-41330

JACOBSON, D. S.
 Hermetically sealed semiconductor
 [NASA-CASE-GSC-10791-1] c15 N73-14469

JAGOW, R. B.
 Process of forming catalytic surfaces for wet
 oxidation reactions
 [NASA-CASE-MSC-14831-1] c25 N78-10225

JAIN, A.
 Surface roughness measuring system
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Energy absorbing structure Patent Application
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KIM, B. H.

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L

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- LEIBERT, C. H.
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- LEISER, D. B.
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- Automatic real-time pair-feeding system for animals
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LYLAND, J. W.
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[NASA-CASE-ERC-10285] c10 N73-16206

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MAY, C. J.
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MAYALL, S. D.
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[NASA-CASE-NPO-10646] c15 N71-28467

MAYNARD, O. E.
Radial module space station Patent
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MAYNE, R. C.
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MAYO, E. E.
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MAYO, J. W.
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[NASA-CASE-XLA-00791] c03 N70-39930
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MAZARIS, G. A.
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MAZIQUE, J.
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MCAFFEE, D. F.
Bi-polar phase detector and corrector for split
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MCALEXANDER, B. T.
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MCBRYER, R. O.
Soft frame adjustable eyeglasses Patent
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MCBRYAR
Ion-exchange membrane with platinum electrode
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[NASA-CASE-XMS-02063] c03 N71-29044

MCBRYAR, H.
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MCCAIG, J. C.
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MCCALLUM, J.
Porus electrode comprising a bonded stack of
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MCCAMPBELL, W. B.
Electric arc welding Patent
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Weld control system using thermocouple wire Patent
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RC rate generator for slow speed measurement
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MCCANDLESS, L. C.
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MCCANN, D. E.
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MCCANN, R. J.
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MCCARTY, J. L.
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MCCAUL, P. F.
Sidereal frequency generator Patent
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MCCHESENEY, J. F., JR.
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MCCONNACK, W.
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MCCORMICK, C. T., JR.
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MCCRAW, D. L.
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MCCREA, F. E.
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MCCREARY, R. A.
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MCCREIGHT, L. E.
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MCDANIELS, D. L.
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[NASA-CASE-XLE-00231] c17 N70-381
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[NASA-CASE-XLE-00228] c17 N70-384

MCDARIS, R. A.
Emergency escape system Patent
[NASA-CASE-XMS-07814] c15 N71-2706

MCDONALD, L. S.
Specific wavelength colorimeter
[NASA-CASE-MSC-14081-1] c35 N74-2786

MCDONALD, D. K.
Synchronous counter Patent
[NASA-CASE-XGS-02440] c08 N71-1943

MCDONALD, F. E.
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[NASA-CASE-MFS-20180] c16 N72-1244

MCDONALD, G. E.
Nuclear fuel elements
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MCDONALD, R. T.
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MCDONALD, A. E.
Force-balanced, throttle valve Patent
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MCDONALD, E. A.
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MENGES, H. J.

MCFADIN, L. W.
 Platinum resistance thermometer circuit
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MCGANNON, W. J.
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MCGHEE, J. B.
 Frangible tube energy dissipation Patent
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 Omnidirectional multiple impact landing system
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 [NASA-CASE-XLA-09881] c31 N71-16085

MCGOUGH, J. T.
 Emergency escape system Patent
 [NASA-CASE-XKS-07814] c15 N71-27067

MCHAFFIE, D. J.
 Extensible cable support Patent
 [NASA-CASE-XMP-07587] c15 N71-18701

MCHATTON, A. D.
 Canister closing device Patent
 [NASA-CASE-XLA-01446] c15 N71-21528
 Traveling sealer for contoured table Patent
 [NASA-CASE-XLA-01494] c15 N71-24164
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MCHATTON, A. P.
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MCHENNY, T. P.
 Miniature carbon dioxide sensor and methods
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 Variable mixer propulsion cycle
 [NASA-CASE-LEW-12917-1] c07 N78-18067

MCKEE, C. W.
 Fluid control apparatus and method
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MCKENNA, J. P., JR.
 Fault tolerant clock apparatus utilizing a
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MCKENNA, E. T.
 Automatic character skew and spacing checking
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MCKENZIE, B. L.
 Diatomic infrared gasdynamic laser
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MCKEOWN, D.
 Method for attaching a fused-quartz mirror to a
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MCKEVITT, P. I.
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MCKINNEY, R. L.
 Self-calibrating displacement transducer Patent
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MCKINNON, B. J.
 External liquid-spray cooling of turbine blades
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 [NASA-CASE-XLE-00037] c28 N70-33372

MCLAIN, J. B.
 Air bearing Patent
 [NASA-CASE-XMP-01887] c15 N71-10617

MCLAUCHLAN, J. B.
 Horizon sensor with a plurality of fixedly
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MCLYNN, F. E.
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 [NASA-CASE-XLA-04451] c02 N71-12243

MCLYNN, C. W. T.
 Inverter oscillator with voltage feedback
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MCLYNN, W. T.
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MCHASTEE, L. B.
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 Vapor phase growth of groups 3-5 compounds by
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MCROWALD, A. D.
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MCWILLIAMS, I. G.
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 Electrostatic thruster with improved insulators
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MEDCALP, W. A.
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MEINTEL, A. J., JR.
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MEISENHOLDER, G. W.
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MEISSINGER, H. P.
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MELAND, L.
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MELFI, L. T., JR.
 Gas analyzer for bi-gaseous mixtures Patent
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 Ionization vacuum gauge with all but the end of
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MELLARS, B.
 Wideband heterodyne receiver for laser
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MELUGIN, J. P.
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MELVILLE, B. D. S.
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MENEFEE, E. O.
 Three-axis controller Patent
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MENGES, H. J.
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HEBRICK, V. K.
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HERRILL, J. T., IV
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HETZGER, A. E.
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HETZLER, A. J.
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MICHEL, R. E.
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MICKA, E. Z.
 Cross correlation anomaly detection system
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 [NASA-CASE-NPO-13282] c38 N78-17396
MICKELSEN, W. E.
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 [NASA-CASE-XLE-00168] c11 N70-33278
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MIDDLETON, J. H.
 Technique for extending the frequency range of
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 Cryogenic thermal insulation Patent
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MIBTTSCHIN, J. L.
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MILLER, A. J.
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INVENTOR INDEX

MOORE, R. L.

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Purging means and method for Xenon arc lamps
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HILLER, B. B.
Compensating radiometer
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Heat sensing instrument Patent
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HILLER, J. A., JR.
Method of forming difunctional polyisobutylene
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HILLER, J. C.
Apparatus for detecting the amount of material in a resonant cavity container Patent
[NASA-CASE-XNP-02500] c18 N71-27397

HILLER, J. E.
Satellite interlace synchronization system
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HILLER, J. G.
Ultrasonic calibration device
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HILLER, J. L.
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HILLER, P. C.
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HILLIGAN, G. C.
Digital memory sense amplifying means Patent
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HILLIKEN, D. B.
Film feed camera having a detent means Patent
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HILLIKEN, J. F.
Linear differential pressure sensor Patent
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HILLS, H. K.
Tracking antenna system Patent
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Antenna array at focal plane of reflector with coupling network for beam switching Patent
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HILLS, S. H.
Transient-compensated SCR inverter
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Apparatus for microbiological sampling
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HILLY, J. J.
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HINKIN, H. L.
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HINOTT, P. O.
Retrodirective optical system
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HINTON, F. R.
Window defect planar mapping technique
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HINTON, U. O.
Window defect planar mapping technique
[NASA-CASE-HSC-19442-1] c74 N77-10899

HITCHELL, D. E.
Borescope with variable angle scope
[NASA-CASE-NPS-15162] c14 N72-32452

HITCHELL, F. R.
Attitude control for spacecraft Patent
[NASA-CASE-XNP-00294] c21 N70-36938

HITCHELL, G. A.
Airflow control system for supersonic inlets
[NASA-CASE-LEW-11188-1] c02 N74-20646

HITCHELL, W. E.
Method and apparatus for detection and location of microleaks Patent
[NASA-CASE-XMP-02307] c14 N71-10779

HITCHELL, V. H.
Digital cardiometer system Patent
[NASA-CASE-XMS-02399] c05 N71-22896

HITCHUM, L. L., JR.
Collapsible loop antenna for space vehicle Patent
[NASA-CASE-XMP-00437] c07 N70-40202

HIISON, J. S.
Ring wing tension vehicle Patent
[NASA-CASE-XLA-04901] c31 N71-24315

HOACANIN, J.
Ionene membrane separator
[NASA-CASE-NFO-11091] c18 N72-22567

Method of making hollow elastomeric bodies
[NASA-CASE-NFO-13535-1] c37 N76-31524

HOECKEL, W. E.
Electro-thermal rocket Patent
[NASA-CASE-XLE-00267] c28 N70-33356

HOEDE, L. W.
Wide range analog-to-digital converter with a variable gain amplifier
[NASA-CASE-NFO-11018] c08 N72-21200

Digital control and information system
[NASA-CASE-NFO-11016] c08 N72-31226

HOER, W. K.
Self-cycling fluid heater
[NASA-CASE-HSC-15567-1] c33 N73-16918

HOFFITT, P. L.
Image magnification adapter for cameras Patent
[NASA-CASE-XMP-03844-1] c14 N71-26474

MOGAVERO, L. E.
System and method for tracking a signal source
[NASA-CASE-HCN-10880-1] c17 N78-17140

HOSEBETH, A. E.
Liquid hydrogen flash vaporizer
[NASA-CASE-LAR-12159-1] c31 N78-11260

HONDT, J. F.
Nuclear thermionic converter
[NASA-CASE-NFO-13121-1] c73 N77-18891

HONFORD, L. G., JR.
Radiometric temperature reference Patent
[NASA-CASE-HSC-13276-1] c14 N71-27058

Multifunction audio digitizer
[NASA-CASE-HSC-13855-1] c35 N74-17885

Digital communication system
[NASA-CASE-HSC-13912-1] c32 N74-30524

Binary concatenated coding system
[NASA-CASE-HSC-14082-1] c60 N76-23850

HONTEITH, J. H.
Flow velocity and directional instrument
[NASA-CASE-LAR-10855-1] c14 N73-13415

HONTEITH, L. K.
Particulate and aerosol detector
[NASA-CASE-LAR-11434-1] c35 N76-22509

HONTGOMERY, L. C.
Process for preparing sterile solid propellants Patent
[NASA-CASE-XNP-01749] c27 N70-41897

Processing for producing a sterilized instrument Patent
[NASA-CASE-XNP-09763] c14 N71-20461

HONTGOMERY, L. D.
Readout electrode assembly for measuring biological impedance
[NASA-CASE-ARC-10816-1] c35 N76-24525

MOODY, D. L., JR.
Readout electrode assembly for measuring biological impedance
[NASA-CASE-ARC-10816-1] c35 N76-24525

MOORE, C. D.
Waveform simulator Patent
[NASA-CASE-NFO-10251] c10 N71-27365

MOORE, B. D.
Reversible ring counter employing cascaded single SCR stages Patent
[NASA-CASE-XGS-01473] c09 N71-10673

MOORE, R. C.
Open loop digital frequency multiplier
[NASA-CASE-HSC-12709-1] c33 N77-24375

MOORE, R. L.
Trigonometric vehicle guidance assembly which aligns the three perpendicular axes of two

three-axes systems Patent [NASA-CASE-XNF-00684]	c21 N71-21688	MORTENSEN, L. O. Impact monitoring apparatus [NASA-CASE-MSC-15626-1]	c14 N72-25411
Rotary actuator [NASA-CASE-NFO-10680]	c31 N73-14855	MOSER, B. G. Zeta potential flowmeter Patent [NASA-CASE-XNP-06509]	c14 N71-23226
MOORE, T. J. Welding blades to rotors [NASA-CASE-LEW-10533-1]	c15 N73-28515	Method for controlling vapor content of a gas [NASA-CASE-NFO-10633]	c03 N72-28025
Enhanced diffusion welding [NASA-CASE-LEW-11388-1]	c15 N73-32358	MOSER, J. C. Electronic checkout system for space vehicles Patent [NASA-CASE-IKS-08012-2]	c31 N71-15566
Production of hollow components for rolling element bearings by diffusion welding [NASA-CASE-LEW-11026-1]	c15 N73-33383	MOSIER, B. Pressed disc type sensing electrodes with ion- screening means Patent [NASA-CASE-XMS-04212-1]	c05 N71-12346
Apparatus for welding blades to rotors, [NASA-CASE-LEW-10533-2]	c37 N74-11300	Plated electrodes Patent [NASA-CASE-XMS-04213-1]	c09 N71-26002
Diffusion welding in air [NASA-CASE-LEW-11387-1]	c37 N74-18128	Method of making a perspiration resistant biopotential electrode [NASA-CASE-MSC-90153-2]	c05 N72-25120
MOORE, W. A. Journal bearings [NASA-CASE-LEW-11076-1]	c37 N74-21061	MOSIER, J. B. Decontamination of petroleum products Patent [NASA-CASE-XNP-03835]	c06 N71-23499
Journal Bearings [NASA-CASE-LEW-11076-2]	c37 N74-32921	MOSSOLANI, D. L. Rotary leveling base platform [NASA-CASE-ARC-10981-1]	c35 N77-10498
Lubricated journal bearing [NASA-CASE-LEW-11076-3]	c37 N75-30562	MOUNTVALA, A. J. Lightweight refractory insulation and method of preparing the same Patent [NASA-CASE-XNP-05279]	c18 N71-16124
Fluid journal bearings [NASA-CASE-LEW-11076-4]	c37 N76-15461	MOYER, X. W. Redundant actuating mechanism Patent [NASA-CASE-XGS-08718]	c15 N71-24600
MORANDU, J. A. Hydraulic transformer Patent [NASA-CASE-MFS-20830]	c15 N71-30028	Delayed simultaneous release mechanism [NASA-CASE-GSC-10814-1]	c03 N73-20039
MORDECAI, T. T. Method of recording a gas flow pattern Patent [NASA-CASE-XNF-01779]	c12 N71-20815	MROZ, T. S. Direct heating surface combustor [NASA-CASE-LEW-11877-1]	c44 N76-28646
MORECROFT, J. B. Incremental motion drive system Patent [NASA-CASE-XNP-08897]	c15 N71-17694	MUEHTER, P. P. Heat sterilizable patient ventilator [NASA-CASE-NFO-13313-1]	c54 N75-27761
MORELLI, F. A. Process for preparing sterile solid propellants Patent [NASA-CASE-XNP-01749]	c27 N70-41897	MUELLER, R. L. Machine for forming a solar array strip [NASA-CASE-NFO-13652-2]	c37 N78-13441
Processing for producing a sterilized instrument Patent [NASA-CASE-XNP-09763]	c14 N71-20461	MUELLER, ROBERT L. A solar array strip and a method for forming the same [NASA-CASE-NFO-13652-1]	c44 N77-28585
MOREMAN, O. S., III Deformable bearing seat [NASA-CASE-LEW-12527-1]	c37 N77-32500	MUELLER, W. A. Aldehyde-containing urea-absorbing polysaccharides [NASA-CASE-NFO-13620-1]	c27 N77-30236
Bearing seat usable in a gas turbine engine [NASA-CASE-LEW-12477-1]	c37 N77-32501	MUGLER, S. W. Precipitation detector Patent [NASA-CASE-XLA-02619]	c10 N71-26334
MORGAN, I. T., JR. Translatory shock absorber for attitude sensors [NASA-CASE-MFS-22905-1]	c19 N76-22284	MULHERRN, J. E., JR. Recorder using selective noise filter [NASA-CASE-REC-10112]	c07 N72-21119
MORGAN, J. E. A condition sensor system and method [NASA-CASE-MSC-14805-1]	c35 N76-26448	MULLER, D. L. Matched thermistors for microwave power meters Patent [NASA-CASE-NFO-10348]	c10 N71-12554
MORGAN, W. C. Thin-walled pressure vessel Patent [NASA-CASE-XLE-04677]	c15 N71-10577	Broadband microwave waveguide window Patent [NASA-CASE-XNF-08880]	c09 N71-24808
MORISSETTE, S. Junction range finder [NASA-CASE-KSC-10108]	c14 N73-25461	MULLEN, L. O. Electrical insulating layer process [NASA-CASE-LEW-10489-1]	c15 N72-25447
MORBELL, G. Method for continuous variation of propellant flow and thrust in repulsive devices Patent [NASA-CASE-XLE-00177]	c28 N70-40367	MULLER, K. Electric arc light source having undercut recessed anode [NASA-CASE-ARC-10266-1]	c33 N75-29318
MORRIS, D. E. Silphenylenesiloxane polymers having in-chain perfluoroalkyl groups [NASA-CASE-MFS-20979]	c06 N72-25151	MULLER, R. M. Method and apparatus for measuring web material wound on a reel [NASA-CASE-GSC-11902-1]	c38 N77-17495
Polymerizable disilanol having in-chain perfluoroalkyl groups [NASA-CASE-MFS-20979-2]	c06 N73-32030	MULLIKEN, R. F. Method of repairing discontinuity in fiberglass structures [NASA-CASE-LAR-10416-1]	c24 N74-30001
MORRIS, J. F. Probes having ring and primary sensor at same potential to prevent collection of stray wall currents in ionized gases [NASA-CASE-XLE-00690]	c25 N69-39884	MUNOLA, P. B. Laser head for simultaneous optical pumping of several dye lasers [NASA-CASE-LAR-11341-1]	c36 N75-19655
Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance [NASA-CASE-LEW-12050-1]	c35 N77-32454	MUNOZ, E. M. High efficiency multivibrator Patent [NASA-CASE-XAC-00942]	c10 N71-16042
Cesium thermionic converters having lanthanum hexaboride electrodes [NASA-CASE-LEW-12038-2]	c44 N77-32595	Nonlinear analog-to-digital converter Patent [NASA-CASE-XAC-04031]	c08 N71-18594
MORRIS, J. B. Difference circuit Patent [NASA-CASE-XNP-08274]	c10 N71-13537		
MORRISON, R. D. Anti-fog composition [NASA-CASE-MSC-13530-2]	c23 N75-14834		
MORSE, C. P. Method and device for cooling Patent [NASA-CASE-BQN-00938]	c33 N71-29053		

Demodulation system Patent
[NASA-CASE-IAC-04030] c10 N71-19472

Phase quadrature-plural channel data transmission system Patent
[NASA-CASE-IAC-06302] c08 N71-19763

Continuous Fourier transform method and apparatus
[NASA-CASE-ARC-10466-1] c60 N75-13539

MUNSON, R. E.
Turnstile slot antenna
[NASA-CASE-GSC-11428-1] c32 N74-20864

MURACA, R. P.
Apparatus for testing polymeric materials Patent
[NASA-CASE-INP-09699] c06 N71-24607

Procedure and apparatus for determination of water in nitrogen tetroxide
[NASA-CASE-NPO-10234] c06 N72-17094

MURCH, R. H.
Metal containing polymers from cyclic tetrameric phenylphosphonitrilamides Patent
[NASA-CASE-HQN-10364] c06 N71-27363

MURPHY, A. J.
Optically actuated two position mechanical mover
[NASA-CASE-NFO-13105-1] c37 N74-21060

MURPHY, D. W.
Frangible link
[NASA-CASE-MSC-11849-1] c15 N72-22488

MURPHY, P. L.
Bimetallic power controlled actuator
[NASA-CASE-INP-09776] c09 N69-39929

MURPHY, J. P.
All sky pointing attitude control system
[NASA-CASE-ARC-0716-1] c35 N77-20399

MURPHY, W. J.
Barium release system
[NASA-CASE-LAR-10670-1] c06 N73-30097

Rocket having barium release system to create ion clouds in the upper atmosphere
[NASA-CASE-LAR-10670-2] c15 N74-27360

MURTY, M. V. R. K.
Concave grating spectrometer Patent
[NASA-CASE-IGS-01036] c14 N70-40003

MUSICK, R. O.
Two-axis controller Patent
[NASA-CASE-XFR-04104] c03 N70-42073

MUSSETT, E. W.
Device for separating occupant from an ejection seat Patent
[NASA-CASE-XNS-04625] c05 N71-20718

MYERS, D. A.
Portable environmental control system Patent
[NASA-CASE-XNS-09632-1] c05 N71-11203

MYERS, I. T.
A regulated high efficiency, lightweight capacitor-diode multiplier DC to DC converter
[NASA-CASE-LEW-12791-1] c33 N77-24385

MYERS, W. H.
Duct coupling for single-handed operation Patent
[NASA-CASE-MFS-20395] c15 N71-24903

Spherical bearing
[NASA-CASE-MFS-23447-1] c37 N77-11403

Mechanical thermal motor
[NASA-CASE-MFS-23062-1] c37 N77-12402

N

NARSETH, R. L.
Aeroflexible structures
[NASA-CASE-XLA-06095] c01 N69-39981

NAGAWO, S.
Circuit for automatic load sharing in parallel converter modules
[NASA-CASE-NPO-14056-1] c33 N77-32402

Overload protection system for power inverter
[NASA-CASE-NPO-13872-1] c33 N78-10377

NAGLE, W. J.
Multi-cell battery protection system
[NASA-CASE-LEW-12039-1] c44 N78-14625

NAIDITCH, S.
Method of producing crystalline materials
[NASA-CASE-NPO-10440] c15 N72-21466

NAIMER, J.
High visibility air sea rescue panel
[NASA-CASE-HSC-12564-1] c54 N76-15792

NAKADA, H. P.
Time of flight mass spectrometer with feedback means from the detector to the low source and a specific counter Patent
[NASA-CASE-INP-01056] c14 N71-23041

NAKANISHI, H. H.
Lightweight refractory insulation and method of preparing the same Patent
[NASA-CASE-INP-05279] c18 N71-16124

NAKAMISHI, S.
Ion thruster cathode Patent Application
[NASA-CASE-LEW-10814-1] c28 N70-35422

Plasma device feed system Patent
[NASA-CASE-XLE-02902] c25 N71-21694

Ion thruster accelerator system Patent
[NASA-CASE-LEW-10106-1] c28 N71-26642

Propellant feed isolator Patent
[NASA-CASE-LEW-10210-1] c28 N71-26781

Single grid accelerator for an ion thruster
[NASA-CASE-XLE-10453-2] c28 N73-27699

NAKICH, R. H.
Apparatus for scanning the surface of a cylindrical body
[NASA-CASE-NPO-11861-1] c36 N74-20009

Digital servo control of random sound test excitation
[NASA-CASE-NFO-11623-1] c71 N74-31148

NANCE, H. H.
A dc motor speed control system Patent
[NASA-CASE-MFS-14610] c09 N71-28886

NAFILES, J. F.
Method for forming plastic materials Patent
[NASA-CASE-XNS-05516] c15 N71-17803

NASON, G. H.
Flexible blade antenna Patent
[NASA-CASE-MSC-12101] c09 N71-18720

NASUTI, A. J.
Test fixture for pellet-like electrical elements
[NASA-CASE-INP-06032] c09 N69-21926

Support structure for irradiated elements Patent
[NASA-CASE-INP-06031] c15 N71-15606

NAUMANN, R. C.
Fatigue testing device Patent
[NASA-CASE-XLA-02131] c32 N70-42003

Automatic fatigue test temperature programmer Patent
[NASA-CASE-XLA-02059] c33 N71-24276

Arbitrarily shaped model survey system Patent
[NASA-CASE-LAR-10098] c32 N71-26681

Function generator for synthesizing complex vibration mode patterns
[NASA-CASE-LAR-10310-1] c10 N73-20253

NAUMANN, R. J.
Liquid aerosol dispenser
[NASA-CASE-MFS-20829] c12 N72-21310

Carbon monoxide monitor
[NASA-CASE-MFS-22060-1] c35 N75-29380

NEAL, P. F.
Emergency escape system Patent
[NASA-CASE-IKS-07814] c15 N71-27067

NEALY, J. R.
Combustion detector
[NASA-CASE-LAR-10739-1] c14 N73-16484

NELSON, B.
Deflective rod switch with elastic support and sealing means Patent
[NASA-CASE-INP-09808] c09 N71-12518

NELSON, B. W.
Optical machine tool alignment indicator Patent
[NASA-CASE-IAC-09489-1] c15 N71-26673

NELSON, C. A.
Flipflop interrogator and bi-polar current driver Patent
[NASA-CASE-IGS-03058] c10 N71-19547

NELSON, C. H.
Ablation sensor
[NASA-CASE-XLA-01781] c14 N69-39975

Reentry communication by material addition Patent
[NASA-CASE-XLA-01552] c07 N71-11284

NELSON, D. E.
Convoluting device for forming convolutions and the like Patent
[NASA-CASE-INP-05297] c15 N71-23811

NELSON, E. P.
Safety-type locking pin
[NASA-CASE-MFS-18495] c15 N72-11385

NELSON, H. H.
Telemetry word forming unit
[NASA-CASE-INP-09225] c09 N69-24333

NELSON, W. J.
Slosh alleviator Patent
[NASA-CASE-XLA-05749] c15 N71-19569

WERHEIM, H. H.
Inert gas metallic vapor laser

[NASA-CASE-NPO-13449-1] c36 N75-32441
NEUMAN, P. D.
 Aircraft design concept
 [NASA-CASE-LAR-11852-1] c05 N77-15027
NEWBY, D. T.
 Hole cutter
 [NASA-CASE-MFS-22649-1] c37 N75-25186
NEWCOMB, A. L., JR.
 Electromagnetic mirror drive system
 [NASA-CASE-XLA-03724] c14 N69-27461
 Ac power amplifier Patent Application
 [NASA-CASE-LAR-10218-1] c09 N70-34559
 Variable duration pulse integrator Patent
 [NASA-CASE-XLA-01219] c10 N71-23084
 Variable width pulse integrator Patent
 [NASA-CASE-XLA-03356] c10 N71-23315
 Attitude sensor
 [NASA-CASE-LAR-10586-1] c19 N74-15089
NEWCOMB, J. F.
 Null device for hand controller Patent
 [NASA-CASE-XLA-01808] c15 N71-20740
NEWCOMB, W. L.
 Quick release separation mechanism Patent
 [NASA-CASE-XLA-01441] c15 N70-41679
NEWCOMBE, C. A.
 Method for making a heat insulating and ablative structure
 [NASA-CASE-XMS-01108] c15 N69-24322
NEWMAN, D. F.
 Test stand system for vacuum chambers
 [NASA-CASE-MFS-21362] c11 N73-20267
NEWMAN, J. B.
 Catalyst bed removing tool Patent
 [NASA-CASE-XPR-00811] c15 N70-36901
NEWMAN, J. R.
 New polymers of perfluorobutadiene and method of manufacture Patent application
 [NASA-CASE-NPO-10863] c06 N70-11251
 Polymers of perfluorobutadiene and method of manufacture
 [NASA-CASE-NPO-10863-2] c06 N72-25152
NICHOLS, G. E.
 Apparatus for controlling the velocity of an electromechanical drive for interferometers and the like Patent
 [NASA-CASE-XGS-03532] c14 N71-17627
 Apparatus for phase stability determination Patent
 [NASA-CASE-XGS-01118] c10 N71-23662
NICHOLS, J. J.
 Force measuring instrument Patent
 [NASA-CASE-XMP-00456] c14 N70-34705
NICHOLS, M. E.
 Nacelle afterbody for jet engines Patent
 [NASA-CASE-XLA-10450] c28 N71-21493
 Dual cycle aircraft turbine engine
 [NASA-CASE-LAR-11310-1] c07 N77-28118
NICKLAS, J. C.
 Attitude control for spacecraft Patent
 [NASA-CASE-XNP-02982] c31 N70-41855
 Solar vane actuator Patent
 [NASA-CASE-XNP-05535] c14 N71-23040
HICKS, O. W.
 Quiet jet transport aircraft
 [NASA-CASE-LAR-11087-1] c02 N73-26008
NICOL, W. S.
 Vapor deposition apparatus
 [NASA-CASE-HQN-10462] c25 N75-29192
NIEDHA, J. R.
 Pulse coupling circuit
 [NASA-CASE-LEW-10433-1] c09 N72-22197
NIEDZWIECKI, R. W.
 Swirl can primary combustor
 [NASA-CASE-LEW-11326-1] c23 N73-30665
 Controlled separation combustor
 [NASA-CASE-LEW-11593-1] c20 N76-14190
NIELSON, T. L.
 Technique of elbow bending small jacketed transfer lines Patent
 [NASA-CASE-INP-10475] c15 N71-24679
NIER, A. O.
 Mass spectrometer with magnetic pcie pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump
 [NASA-CASE-NPO-13663-1] c35 N77-14406
NIESSEN, F. B.
 Filtering technique based on high-frequency plant modeling for high-gain control
 [NASA-CASE-LAR-12215-1] c08 N78-17070
NISSIN, E.
 Suppression of flutter
 [NASA-CASE-LAR-10682-1] c02 N73-26004
NITTA, H.
 High-temperature, high-pressure spherical segment valve Patent
 [NASA-CASE-XAC-00074] c15 N70-34817
NIXON, D. L.
 Parabolic reflector horn feed with spillover correction Patent
 [NASA-CASE-XNP-00540] c09 N70-35382
 Indexing microwave switch Patent
 [NASA-CASE-XNP-06507] c09 N71-23548
 Rotary vane attenuator wherein rotor has orthogonally disposed resistive and dielectric cards
 [NASA-CASE-NPO-11418-1] c14 N73-13420
NOBLE, R. M.
 Solenoid construction Patent
 [NASA-CASE-XNP-01951] c09 N70-41929
NOLA, P. J.
 Positive dc to positive dc converter Patent
 [NASA-CASE-XMP-14301] c09 N71-23188
 Positive dc to negative dc converter Patent
 [NASA-CASE-XMP-08217] c03 N71-23239
 Transistor servo system including a unique differential amplifier circuit Patent
 [NASA-CASE-XMP-05195] c10 N71-24861
 Brushless direct current tachometer Patent
 [NASA-CASE-MFS-20385] c09 N71-24904
 Redundant speed control for brushless Hall effect motor
 [NASA-CASE-MFS-20207-1] c09 N73-32107
 Induction motor control system with voltage controlled oscillator circuit
 [NASA-CASE-MFS-21465-1] c10 N73-32145
 Variable frequency inverter for ac induction motors with torque, speed and braking control
 [NASA-CASE-MFS-22088-1] c33 N75-15874
 Tachometer
 [NASA-CASE-MFS-23175-1] c35 N77-30436
 Power factor control system for AC induction motors
 [NASA-CASE-MFS-23280-1] c33 N78-10376
NOED, D. B.
 Method of joining aluminum to stainless steel Patent
 [NASA-CASE-MFS-07369] c15 N71-20443
NORDEN, B. W.
 Hybrid holographic system using reflected and transmitted object beams simultaneously Patent
 [NASA-CASE-MFS-20074] c16 N71-15565
 Holographic thin film analyzer
 [NASA-CASE-MFS-20823-1] c16 N73-30476
NORRIS, S. J.
 Spherical shield Patent
 [NASA-CASE-XNP-01855] c15 N71-28937
NORRIS, C. T.
 Colloid propulsion method and apparatus Patent
 [NASA-CASE-XLE-00817] c28 N70-33265
 Gas turbine combustor Patent
 [NASA-CASE-LEW-10286-1] c28 N71-28915
 Splash groove fuel injector
 [NASA-CASE-LEW-12417-1] c07 N76-22198
NORR, C. L.
 Sight switch using an infrared source and sensor Patent
 [NASA-CASE-INP-03934] c09 N71-22985
NORMAN, R. M.
 Vibration isolation system using compression springs
 [NASA-CASE-NPO-11012] c15 N72-11391
 Expandable support means
 [NASA-CASE-NPO-11059] c15 N72-17454
 Zero torque gear head wrench
 [NASA-CASE-NPO-13059-1] c37 N76-20480
NORTON, R. H.
 Thruster maintenance system Patent
 [NASA-CASE-MFS-20325] c28 N71-27095
 Self-recording portable soil penetrometer
 [NASA-CASE-MFS-20774] c14 N73-19420
NORWOOD, J., JR.
 Magnetically controlled plasma accelerator Patent
 [NASA-CASE-XLA-00327] c25 N71-29184
NOSEN, E. J.
 Frequency measurement by coincidence detection with standard frequency
 [NASA-CASE-HSC-14649-1] c33 N76-16331

NOVOTNY, J. E.
 Ultrastable calibrated light source
 [NASA-CASE-HSC-12293-1] c14 N72-27411

NUSBAUM, W. J.
 Apparatus for absorbing and measuring power Patent
 [NASA-CASE-XLE-00720] c14 N70-40201

O

OAKLEY, E. C.
 RF-source resistance meters
 [NASA-CASE-NPO-11291-1] c14 N73-30388

OBERSCHNIDT, H.
 Flow test device
 [NASA-CASE-XMS-04917] c14 N69-24257

OBLEB, E. D.
 Air conditioning system and component therefore
 distributing air flow from opposite directions
 [NASA-CASE-GSC-11445-1] c31 N74-27902

OBRIEN, D. E., III
 Technique for recovery of voice data from heat
 damaged magnetic tape
 [NASA-CASE-HSC-14219-1] c32 N74-27612

OCOMBER, B. J.
 Failure detection and control means for improved
 drift performance of a gimbaled platform system
 [NASA-CASE-HFS-23551-1] c04 N76-26175

OCOMBER, R. W.
 Condensate removal device for heat exchanger
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 Full flow with shut off and selective drainage

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RUSSELL, J. H., III
Event recorder Patent
[NASA-CASE-XLA-01832] c14 N71-21006
Ablation sensor Patent
[NASA-CASE-XLA-01791] c14 N71-22991

RUSSELL, L. D.
High intensity radiant energy pulse source
having means for opening shutter when light
flux has reached a desired level
[NASA-CASE-ARC-10178-1] c09 N72-17152
Thermoelectric radionometer utilizing polymer film
[NASA-CASE-ARC-10138-1] c14 N72-24477

RUSSELL, W. E.
Method and apparatus for making curved

reflectors Patent
[NASA-CASE-XLE-08917] c15 N71-15597
Apparatus for making curved reflectors Patent
[NASA-CASE-XLE-08917-2] c15 N71-24836

RUST, R.
Solenoid construction Patent
[NASA-CASE-XNP-01951] c09 N70-41929

RYAN, C. R.
Quadrature demodulation
[NASA-CASE-GSC-12137-1] c32 N77-27272

RYASON, P. R.
Solar photolysis of water
[NASA-CASE-NPO-13675-1] c44 N77-32580
Improved solar photolysis of water
[NASA-CASE-NPO-14126-1] c44 N78-11500

S

SABAROFF, S.
Broadband frequency discriminator Patent
[NASA-CASE-NPO-10096] c07 N71-24583
Systems and methods for determining radio
frequency interference
[NASA-CASE-GSC-12150-1] c32 N77-12247

SABELMAN, E. E.
Pump for delivering heated fluids
[NASA-CASE-NPO-11417] c15 N73-24513
Ferrofluidic solenoid
[NASA-CASE-NPO-11738-1] c09 N73-30185

SABOL, A. P.
Crossed-field MHD plasma generator/ accelerator
Patent
[NASA-CASE-XLA-03374] c25 N71-15562
Self-repeating plasma generator having
communicating annular and linear arc discharge
passages Patent
[NASA-CASE-XLA-03103] c25 N71-21693
Apparatus and method for generating large mass
flow of high temperature air at hypersonic
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[NASA-CASE-LAR-10612-1] c12 N73-28144
Heat exchanger system and method
[NASA-CASE-LAR-10799-2] c34 N76-17317
Solar hydrogen generator
[NASA-CASE-LAR-11361-1] c44 N77-22607

SACKS, B. B.
Magnetically actuated tuning method for Gunn
oscillators
[NASA-CASE-NPO-12106] c09 N73-15235

SADHUKHAN, P.
Process for preparing higher oxides of the
alkali and alkaline earth metals
[NASA-CASE-ARC-10992-1] c25 N77-17178

SAFFREN, M. M.
Material suspension within an acoustically
excited resonant chamber
[NASA-CASE-NPO-13263-1] c12 N75-24774
Heat operated cryogenic electrical generator
[NASA-CASE-NPO-13303-1] c20 N75-24837
Doped Josephson tunneling junction for use in a
sensitive IR detector
[NASA-CASE-NPO-13348-1] c33 N75-31332
Magnetometer using superconducting rotating body
[NASA-CASE-NPO-13388-1] c35 N76-16390
Method and apparatus for generating coherent
radiation in the ultra-violet region and above
by use of distributed feedback
[NASA-CASE-NPO-13346-1] c36 N76-29575
Apparatus for photon excited catalysis
[NASA-CASE-NPO-13566-1] c25 N77-32255

SABINKAYA, Y.
Optimal control system for an electric motor
driven vehicle
[NASA-CASE-NPO-11210] c11 N72-20244

SAINSBURY-CARTER, J. B.
Bonded joint and method
[NASA-CASE-LAR-10900-1] c37 N74-23064

SAINTCLAIR, T. L.
Polyimide adhesives
[NASA-CASE-LAR-11397-1] c27 N75-29263

SAMELLABIS, P. C.
Automatic fluid dispenser
[NASA-CASE-ABC-10820-1] c35 N78-19466

SALEH, C. T.
Impact absorbing blade mounts for variable pitch
blades
[NASA-CASE-LEW-12313-1] c37 N78-10468

SALISBURY, J. E., JR.
An improved controller arm for a remotely
related slave arm
[NASA-CASE-ARC-11052-1] c54 N77-30751

SALMIRS, S.
Radiation direction detector including means for
compensating for photocell aging Patent
[NASA-CASE-XLA-00183] c14 N70-40239
Spacecraft separation system for spinning
vehicles and/or payloads Patent
[NASA-CASE-XLA-02132] c31 N71-10582

SALTER, W. E.
Pseudo-noise test set for communication system
evaluation
[NASA-CASE-MFS-22671-1] c35 N75-21582
Method of and means for testing a tape
record/playback system
[NASA-CASE-MFS-22671-2] c35 N77-17426

SALTZMAN, E. J.
Traversing probe Patent
[NASA-CASE-XFR-02007] c12 N71-24692

SALVINSKI, R. J.
Electrohydrodynamic control valve Patent
[NASA-CASE-NFO-10416] c12 N71-27332
Ultrasonically bonded valve assembly
[NASA-CASE-NPO-13360-1] c37 N75-25185

SAMFIELD, E.
Inflatable tether Patent
[NASA-CASE-XMS-10993] c15 N71-28936

SAMOWSKI, F. B., JR.
Liquid-gas separator for zero-gravity
environment Patent
[NASA-CASE-XMS-01492] c05 N70-41297

SAMSON, J. A. B.
Analytical photoionization mass spectrometer
with an argon gas filter between the light
source and monochromator Patent
[NASA-CASE-LAR-10180-1] c06 N71-13461

SAMSON, R.
Sealed cabinetry Patent
[NASA-CASE-MSC-12168-1] c09 N71-18600

SAN MIGUEL, A.
Means and method of measuring viscoelastic
strain Patent
[NASA-CASE-XNP-01153] c32 N71-17645
Miniature stress transducer Patent
[NASA-CASE-XNP-02983] c14 N71-21091

SANDBORN, V. A.
Particle beam measurement apparatus using beam
kinetic energy to change the heat sensitive
resistance of the detection probe Patent
[NASA-CASE-XLE-00243] c14 N70-38602
Apparatus for increasing ion engine beam density
Patent
[NASA-CASE-XLE-00519] c28 N70-41576

SANDER, B. C.
Transient video signal recording with expanded
playback Patent
[NASA-CASE-ABC-10003-1] c09 N71-25866

SANDERS, B. W.
Airflow control system for supersonic inlets
[NASA-CASE-LEW-11188-1] c02 N74-20646

SANDFORD, M. C.
Solar cell angular position transducer
[NASA-CASE-LAR-11999-1] c35 N78-18394

SANDBROCK, G. D.
High temperature cobalt-base alloy Patent
[NASA-CASE-XLE-02991] c17 N71-16025
High temperature ferromagnetic cobalt-base alloy
Patent
[NASA-CASE-XLE-03629] c17 N71-23248
Cobalt-base alloy
[NASA-CASE-LEW-10436-1] c17 N73-32415

SANDSTROM, D. B.
Fabrication of single crystal film semiconductor
devices
[NASA-CASE-ERC-10222] c09 N72-22199

SANKO, P. B.
Fire protection covering for small diameter
missiles
[NASA-CASE-ABC-11104-1] c15 N78-13110

SANTARPIA, D.
Dually mode locked Nd:YAG laser
[NASA-CASE-GSC-11746-1] c36 N75-19654

SARGISSON, D. F.
Gas turbine engine with convertible accessories
[NASA-CASE-LEW-12390-1] c07 N78-17056
Integrated gas turbine engine-nacelle
[NASA-CASE-LEW-12389-2] c07 N78-18066

SAUER, L. S.
Hybrid lubrication system and bearing Patent

[NASA-CASE-INP-01641] c15 N71-22997

SAUER, R. L.
Automatic biowaste sampling
[NASA-CASE-MSC-14640-1] c54 N76-14804

SAUER, T. B.
Parallel-plate viscometer with double diaphragm suspension
[NASA-CASE-NPO-11387] c14 N73-14429

SAUERS, D. G.
Measuring device Patent
[NASA-CASE-XMS-01546] c14 N70-40233
Lightweight electrically powered flexible thermal laminate
[NASA-CASE-MSC-12662-1] c24 N75-16635

SAUNDERS, A. B.
A technique for breaking ice in the path of a ship
[NASA-CASE-LAR-10815-1] c16 N72-22520

SAUNDERS, M. T.
Method of producing porous tungsten ionizers for ion rocket engines Patent
[NASA-CASE-XLE-00455] c28 N70-38197

SAUTER, R. J.
Foot pedal operated fluid type exercising device
[NASA-CASE-MSC-11561-1] c05 N73-32014

SAVINO, J. B.
Simulated fuel assembly Patent
[NASA-CASE-XLE-00724] c14 N70-34669

SAWKO, P. M.
Polymeric vehicles as carriers for sulfonic acid salt of nitrosubstituted aromatic amines
[NASA-CASE-ARC-10325] c06 N72-25147
Intumescent paint containing nitrile rubber
[NASA-CASE-ARC-10196-1] c18 N73-13562
Transparent fire resistant polymeric structures
[NASA-CASE-ARC-10813-1] c27 N76-16230
Intumescent-ablator coatings using endothermic fillers
[NASA-CASE-ARC-11043-1] c34 N77-14372
Intumescent coatings containing 4,4'-dinitrosulfanilide
[NASA-CASE-ARC-11042-1] c24 N78-14096

SAWYER, C. D.
Control for nuclear thermionic power source
[NASA-CASE-NPO-13114-2] c44 N76-15573

SAWYER, D. B.
Semiconductor-ferroelectric memory device
[NASA-CASE-ERC-10307] c08 N72-21198
Fabrication of single crystal film semiconductor devices
[NASA-CASE-ERC-10222] c09 N72-22199

SAWYER, J. T.
Leak detector
[NASA-CASE-MPS-21761-1] c35 N75-15931

SCAPICCHIO, A. J.
Apparatus and method for separating a semiconductor wafer Patent
[NASA-CASE-ERC-10138] c26 N71-14354

SCHACH, M.
Apparatus for controlling the temperature of balloon-borne equipment
[NASA-CASE-GSC-11620-1] c34 N74-23039

SCHACHT, W. F.
Water cooled contactor for anode in carbon arc mechanism
[NASA-CASE-XMS-03700] c15 N69-24266

SCHACHTER, H. H.
Apparatus for producing three-dimensional recordings of fluorescence spectra Patent
[NASA-CASE-XGS-01231] c14 N70-41676

SCHAEFFER, D. B.
Binary magnetic memory device Patent
[NASA-CASE-XGS-00174] c08 N70-34743
Logarithmic converter Patent
[NASA-CASE-XLA-00471] c08 N70-34778
Full binary adder Patent
[NASA-CASE-XGS-00689] c08 N70-34787
Ripple add and ripple subtract binary counters Patent
[NASA-CASE-XGS-04766] c08 N71-18602
Computing apparatus Patent
[NASA-CASE-XGS-04765] c08 N71-18693
Signal detection and tracking apparatus Patent
[NASA-CASE-XGS-03502] c10 N71-20852
Two-dimensional radiant energy array computers and computing devices
[NASA-CASE-GSC-11839-1] c60 N77-14751
Memory device for two-dimensional radiant energy array computers
[NASA-CASE-GSC-11839-2] c60 N78-10709

SCHAEFFER, G. J.
Apparatus and method for determining the position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410

SCHAEZ, G. B.
Method of making porous conductive supports for electrodes
[NASA-CASE-GSC-11367-1] c44 N74-19692

SCHAEFFER, G. L.
Multivibrator circuit with means to prevent false triggering from supply voltage fluctuations Patent
[NASA-CASE-ARC-10137-1] c09 N71-28468

SCHAEFFERT, J. C.
Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit Patent
[NASA-CASE-XGS-00381] c09 N70-34819

SCHALLER, W. C.
Apparatus for vibrational testing of articles
[NASA-CASE-GSC-11302-1] c14 N73-13416

SCHAEFFERT, G. T.
Method and apparatus for wavelength tuning of liquid lasers
[NASA-CASE-ERC-10187] c16 N69-31343

SCHAUS, B. B.
Thermobulb mount Patent
[NASA-CASE-NFO-10158] c33 N71-16356

SCHIEBE, H.
Metering gun for dispensing precisely measured charges of fluid
[NASA-CASE-MPS-21163-1] c54 N74-17853

SCHREIBLEY, D. W.
Flexible formulated plastic separators for alkaline batteries
[NASA-CASE-LEW-12363-1] c44 N76-19552

SCHRELL, J. T.
Cryogenic thermal insulation Patent
[NASA-CASE-INP-05046] c33 N71-28892

SCHER, M. F.
Spacecraft attitude control method and apparatus
[NASA-CASE-ECN-10439] c21 N72-21624

SCHER, S. B.
Hot air balloon deceleration and recovery system Patent
[NASA-CASE-XLA-06824-2] c02 N71-11037

SCHIFFNER, G.
Power supply for carbon dioxide lasers
[NASA-CASE-GSC-11222-1] c16 N73-32391

SCHILLER, J. G.
Device for the detection of phenol and related compounds
[NASA-CASE-LEW-12513-1] c25 N77-18238

SCHINDLER, R. A.
Interferometer direction sensor Patent
[NASA-CASE-NFO-10320] c14 N71-17655
Interferometer servo system Patent
[NASA-CASE-NPO-10300] c14 N71-17662
Single reflector interference spectrometer and drive system therefor
[NASA-CASE-NFO-11932-1] c35 N74-23040
Method and apparatus for providing a servo drive signal in a high-speed stepping interferometer
[NASA-CASE-NPO-13569-2] c33 N77-28395
Interferometer mirror tilt correcting system
[NASA-CASE-NPO-13687-1] c35 N78-18391
Over-under double-pass interferometer
[NASA-CASE-NPO-13999-1] c35 N78-18395

SCHLESINGER, F. W.
Optical alignment system Patent
[NASA-CASE-INP-02029] c14 N70-41955

SCHLOSS, A. L.
Solid state switch
[NASA-CASE-INP-09228] c09 N69-27500

SCHMIDT, B. R.
Caterpillar micro positioner
[NASA-CASE-GSC-10780-1] c14 N72-16283

SCHMIDT, H. W.
Conical valve plug Patent
[NASA-CASE-XLE-00715] c15 N70-34859
Fluid coupling Patent
[NASA-CASE-XLE-00397] c15 N70-36492

SCHMIDT, K. C.
Radiation and particle detector and amplifier
[NASA-CASE-NFO-12128-1] c14 N73-32317

SCHMIDT, L. F.
Photosensitive device to detect bearing deviation Patent
[NASA-CASE-INP-00438] c21 N70-35089

Light sensor
[NASA-CASE-NPO-11311] c14 N72-25414

Sun direction detection system
[NASA-CASE-NPO-13722-1] c74 N77-22951

SCHMIDT, R.
Reactance control system Patent
[NASA-CASE-XMF-01598] c21 N71-15583

SCHMIDT, R. P.
Monopulse system with an electronic scanner
[NASA-CASE-IGS-05582] c07 N69-27460

Electronic scanning of 2-channel monopulse patterns Patent
[NASA-CASE-GSC-10299-1] c09 N71-24804

Dish antenna having switchable beamwidth
[NASA-CASE-GSC-11760-1] c33 N75-19516

Single frequency, two feed dish antenna having switchable beamwidth
[NASA-CASE-GSC-11968-1] c32 N76-15329

Variable beamwidth antenna
[NASA-CASE-GSC-11862-1] c32 N76-18295

Switchable beamwidth monopulse method and system
[NASA-CASE-GSC-11924-1] c33 N76-27472

SCHMIDT, W. G.
Ammonium perchlorate composite propellant containing an organic transitional metal chelate catalytic additive Patent
[NASA-CASE-LAR-10173-1] c27 N71-14090

SCHMITT, A. L.
Sun angle calculator
[NASA-CASE-HSC-12617-1] c35 N76-29552

SCHMITZ, B. W.
Trajectory-correction propulsion system Patent
[NASA-CASE-XNP-01104] c28 N70-39931

SCHMITZ, P. B.
Acoustically swept rotor
[NASA-CASE-ABC-11106-1] c05 N77-31130

SCHNEIDER, R. T.
Safety flywheel
[NASA-CASE-HQN-10888-1] c37 N77-22484

Non-equilibrium radiation nuclear reactor
[NASA-CASE-HQN-10841-1] c73 N78-19920

SCHNEIDER, W. C.
Auger attachment method for insulation
[NASA-CASE-HSC-12615-1] c37 N76-19437

SCHNITZER, B.
Inflatable honeycomb Patent
[NASA-CASE-XLA-00204] c32 N70-36536

Manned space station Patent
[NASA-CASE-XLA-00258] c31 N70-38676

Method of making inflatable honeycomb Patent
[NASA-CASE-XLA-03492] c15 N71-22713

SCHNOPPER, H. W.
Dual purpose optical instrument capable of simultaneously acting as spectrometer and diffractometer
[NASA-CASE-XNP-05231] c14 N73-28491

SCHOEN, A. B.
Honeycomb panels formed of minimal surface periodic tubule layers
[NASA-CASE-ERC-10364] c18 N72-25540

Honeycomb core structures of minimal surface tubule sections
[NASA-CASE-ERC-10363] c18 N72-25541

Expandable space frames
[NASA-CASE-ERC-10365-1] c31 N73-32749

SCHOLL, J. A.
Method of forming shapes from planar sheets of thermosetting materials
[NASA-CASE-NPO-11036] c15 N72-24522

SCHORUN, S. B.
High speed binary to decimal conversion system Patent
[NASA-CASE-IGS-01230] c08 N71-19544

SCHRAEDER, J. B.
Multiple input radio receiver Patent
[NASA-CASE-XLA-00901] c07 N71-10775

Cooperative Doppler radar system Patent
[NASA-CASE-LAR-10403] c21 N71-11766

Apparatus for aiding a pilot in avoiding a midair collision between aircraft
[NASA-CASE-LAR-10717-1] c21 N73-30641

SCHREDER, K. D.
Broadband stable power multiplier Patent
[NASA-CASE-XNP-10854] c10 N71-26331

SCHROCK, C. G.
Detection of microbial infection in blood and antibiotic determinations
[NASA-CASE-GSC-12045-1] c52 N77-18733

Determination of antimicrobial susceptibilities of infected urines without isolation
[NASA-CASE-GSC-12046-1] c52 N77-26797

SCHUBERT, P. B.
Iodine generator for reclaimed water purification
[NASA-CASE-HSC-14632-1] c54 N78-14784

SCHUEBER, P. B.
Sprayable low density ablator
[NASA-CASE-MFS-23506-1] c24 N77-15105

SCHULLER, P. T.
Journal bearings
[NASA-CASE-LFW-11076-1] c37 N74-21061

Journal Bearings
[NASA-CASE-LFW-11076-2] c37 N74-32921

Lubricated journal bearing
[NASA-CASE-LFW-11076-3] c37 N75-30562

Fluid journal bearings
[NASA-CASE-LFW-11076-4] c37 N76-15461

SCHUMACHER, L. L.
Wide angle sun sensor
[NASA-CASE-NPO-13327-1] c35 N75-23910

SCHUSTER, D. B.
Antenna beam-shaping apparatus Patent
[NASA-CASE-XNP-00611] c09 N70-35219

Parabolic reflector horn feed with spillover correction Patent
[NASA-CASE-XNP-00540] c09 N70-35382

Insertion loss measuring apparatus having transformer means connected across a pair of bolometers Patent
[NASA-CASE-XNP-01193] c10 N71-16057

SCHUSTER, B. A.
Solid state television camera system Patent
[NASA-CASE-XMF-06092] c07 N71-24612

SCHUTT, J. B.
Alkali-metal silicate protective coating
[NASA-CASE-XGS-04119] c18 N69-39979

Fire resistant coating composition Patent
[NASA-CASE-GSC-10072] c18 N71-14014

Method for etching copper Patent
[NASA-CASE-XGS-06306] c17 N71-16044

Alkali metal silicate protective coating Patent
[NASA-CASE-XGS-04799] c18 N71-24183

Phototropic composition of matter
[NASA-CASE-XGS-03736] c14 N72-22443

Potassium silicate zinc coatings
[NASA-CASE-GSC-10361-1] c18 N72-23581

Ultraviolet light reflective coating
[NASA-CASE-GSC-11786-1] c24 N76-24363

Remote sensing of vegetation and soil using microwave ellipsometry
[NASA-CASE-GSC-11976-1] c43 N78-10529

Alkali-metal silicate binders and methods of manufacture
[NASA-CASE-GSC-12303-1] c27 N78-17217

SCHUTZENHOFER, L. A.
Apparatus for reducing aerodynamic noise in a wind tunnel
[NASA-CASE-MFS-23099-1] c09 N76-23273

SCHWAB, W.
Closed loop spray cooling apparatus
[NASA-CASE-LFW-11981-2] c34 N77-32434

SCHWAB, W. B.
Solid state power mapping instrument Patent
[NASA-CASE-XIE-00301] c14 N70-36808

Closed loop spray cooling apparatus
[NASA-CASE-LFW-11981-1] c31 N78-17237

SCHWARTZ, I. B.
Abating exhaust noises in jet engines
[NASA-CASE-ARC-10712-1] c07 N74-33218

SCHWARZ, P. C.
Saturation current protection apparatus for saturable core transformers Patent
[NASA-CASE-ERC-10075] c09 N71-24800

Unsaturating saturable core transformer Patent
[NASA-CASE-ERC-10125] c09 N71-24893

Saturation current protection apparatus for saturable core transformers
[NASA-CASE-ERC-10075-2] c09 N72-22196

Load-insensitive electrical device
[NASA-CASE-XEB-11046] c09 N72-22203

Analog Signal to Discrete Time Interval Converter (ASDTIC)
[NASA-CASE-ERC-10048] c09 N72-25251

Controllable load insensitive power converters
[NASA-CASE-ERC-10268] c09 N72-25252

Load insensitive electrical device
[NASA-CASE-XEB-11046-2] c33 N74-22864

SCHWINGHAMER, B. J.
 Angular measurement system Patent
 [NASA-CASE-XMF-00447] c14 N70-33179
 Space vehicle electrical system Patent
 [NASA-CASE-XMF-00517] c03 N70-34157
 Electrical discharge apparatus for forming Patent
 [NASA-CASE-XMF-00375] c15 N70-34249
 Electro-optical alignment control system Patent
 [NASA-CASE-XMF-00908] c14 N70-40238
 Method and apparatus for precision sizing and
 joining of large diameter tubes Patent
 [NASA-CASE-XMF-05114] c15 N71-17650
 Magnetomotive metal working device Patent
 [NASA-CASE-XMF-03793] c15 N71-24833
 Method and apparatus for precision sizing and
 joining of large diameter tubes Patent
 [NASA-CASE-XMF-05114-3] c15 N71-24865
 Method and apparatus for precision sizing and
 joining of large diameter tubes Patent
 [NASA-CASE-XMF-05114-2] c15 N71-26148
SCHWUTKE, G. H.
 Production of crystals from molten solutions
 [NASA-CASE-NPO-13969-2] c76 N77-30984
SCIACCA, T. P.
 Device for measuring electron-beam intensities
 and for subjecting materials to electron
 irradiation in an electron microscope
 [NASA-CASE-IGS-01725] c14 N69-39982
SCOGGINS, J. E.
 Meteorological balloon Patent
 [NASA-CASE-XMF-04163] c02 N71-23007
SCOTT, C. E.
 Magnifying scratch gage force transducer
 [NASA-CASE-LAR-10496-1] c14 N72-22437
SCOTT, C. N.
 Inflatable transpiration cooled nozzle
 [NASA-CASE-MFS-20619] c28 N72-11708
SCOTT, R. F.
 Burrowing apparatus
 [NASA-CASE-XNP-07169] c15 N73-32362
SCOTT, R. E.
 Solar cell including second surface mirrors Patent
 [NASA-CASE-NPO-10109] c03 N71-11049
SCOTT, S. G.
 Nonmagnetic thermal motor for a magnetometer
 [NASA-CASE-XAR-03786] c09 N69-21313
SCOTT, W. L.
 Tactile sensing means for prosthetic limbs
 [NASA-CASE-MFS-16570-1] c05 N73-32013
SCOW, J.
 Multiple circuit switch apparatus with improved
 pivot actuator structure Patent
 [NASA-CASE-XAC-03777] c10 N71-15909
SCROOB, F. R.
 Relief container
 [NASA-CASE-XMS-06761] c05 N69-23192
SCUDDER, L. B.
 Application of semiconductor diffusants to solar
 cells by screen printing
 [NASA-CASE-LEW-12775-1] c44 N77-24589
SCULLY, P. T.
 Collapsible reflector Patent
 [NASA-CASE-XMS-03454] c09 N71-20658
SEA, B. G.
 Junction range finder
 [NASA-CASE-KSC-10108] c14 N73-25461
SEATON, A. P.
 Phase multiplying electronic scanning system
 Patent
 [NASA-CASE-NPO-10302] c10 N71-26142
 Virtual wall slot circularly polarized planar
 array antenna
 [NASA-CASE-NPO-10301] c07 N72-11148
 Conical reflector antenna
 [NASA-CASE-NPO-10303] c07 N72-22127
SEATON, S. L.
 Electrostatic plasma modulator for space vehicle
 re-entry communication Patent
 [NASA-CASE-XLA-01400] c07 N70-41331
 Means for communicating through a layer of
 ionized gases Patent
 [NASA-CASE-XLA-01127] c07 N70-41372
 Method for measuring the characteristics of a
 gas Patent
 [NASA-CASE-XLA-03375] c16 N71-24074
 Laser calibrator Patent
 [NASA-CASE-XLA-03410] c16 N71-25914
SEAY, B. P., JR.
 Burst synchronization detection system Patent
 [NASA-CASE-XMS-05605-1] c10 N71-19468
SEBACHER, D. I.
 Solar hydrogen generator
 [NASA-CASE-LAR-11361-1] c44 N77-22607
SECKEL, E.
 Integrated lift/drag controller for aircraft
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[NASA-CASE-LEW-10518-1]	c24 N72-33681	[NASA-CASE-MFS-20619]		c28 N72-11708
SMITH, W. W.		SPADY, A. A., JR.	Backpack carrier	Patent
Trajectory-correction propulsion system	Patent	[NASA-CASE-LAR-10056]		c05 N71-12351
[NASA-CASE-INP-01104]	c28 N70-39931	Reduced gravity simulator	Patent	
SMOOT, G. F.		[NASA-CASE-XLA-01787]		c11 N71-16028
Low gravity phase separator		SPAIN, I. L.	Hall effect magnetometer	
[NASA-CASE-MSC-14773-1]	c35 N78-12390	[NASA-CASE-LEW-11632-2]		c35 N75-13213
SHYLB, R. E.		SPALVINS, T.	Deposition of alloy films	
Liquid-gas separator for zero gravity		[NASA-CASE-LEW-11262-1]		c27 N74-13270
environment	Patent	SPARKS, R. H.	Fifth wheel	
[NASA-CASE-XMS-01492]	c05 N70-41297	[NASA-CASE-FRC-10081-1]		c37 N77-14477
SHYLY, R. E.		SPARSHAW, M. L.	Translating horizontal tail	Patent
Differential pressure control		[NASA-CASE-XLA-08801-1]		c02 N71-11043
[NASA-CASE-MFS-14216]	c14 N73-13418	SPRISER, R. C.	Focussing system for an ion source having	
SNEEDEN, R. J.		apertured electrodes	Patent	
Gas turbine combustion apparatus	Patent	[NASA-CASE-INP-03332]		c09 N71-10618
[NASA-CASE-XLP-103477-1]	c28 N71-20330	SPENCER, B., JR.	Variable geometry manned orbital vehicle	Patent
SNODDY, L. G.		[NASA-CASE-XLA-03691]		c31 N71-15674
Insert facing tool		Variable dihedral shuttle orbiter		c05 N77-31132
[NASA-CASE-MFS-21485-1]	c37 N74-25968	[NASA-CASE-LAR-10706-2]		
SNYDER, J. A.		SPENCER, D. J.	Data compression system with a minimum time	
Injector for use in high voltage isolators for		delay unit	Patent	
liquid feed lines		[NASA-CASE-INP-08832]		c08 N71-12506
[NASA-CASE-NPO-11377]	c15 N73-27406	SPENCER, J. L.	Electronic strain-level counter	
SNYDER, L. M.		[NASA-CASE-LAR-10756-1]		c32 N73-26910
Particle detection apparatus including a		SPENCER, P. E.	Radiation direction detector including means for	
ballistic pendulum	Patent	compensating for photocell aging	Patent	
[NASA-CASE-XMS-04201]	c14 N71-22990	[NASA-CASE-XLA-00183]		c14 N70-40239
SNYDER, R. S.		SPENCER, R. L.	Thickness measuring and injection device	Patent
Method of crystallization		[NASA-CASE-MFS-20261]		c14 N71-27005
[NASA-CASE-MFS-23001-1]	c76 N77-32919	Ultrasonic scanner for radial and flat panels		c35 N74-10415
SODD, V. J.		[NASA-CASE-MFS-20335-1]		
Production of high purity I-123		SPENCER, B. S.	Method of treating the surface of a glass member	
[NASA-CASE-LEW-10518-1]	c24 N72-33681	[NASA-CASE-GSC-12110-1]		c27 N77-32308
SOPFEN, G. A.		SPIER, R. A.	Portable milling tool	Patent
Automated fluid chemical analyzer	Patent	[NASA-CASE-XMP-03511]		c15 N71-22799
[NASA-CASE-INP-09451]	c06 N71-26754	Restraint system for ergometer		c14 N73-27377
SOHL, G.		[NASA-CASE-MFS-21046-1]		
Focussing system for an ion source having		Tilting table for ergometer and for other		
apertured electrodes	Patent	biomedical devices		
[NASA-CASE-XMP-03332]	c09 N71-10618	[NASA-CASE-MFS-21010-1]		c05 N73-30078
Ion engine casing construction and method of		Vee-notching device		c39 N74-13131
making same	Patent	[NASA-CASE-MFS-20730-1]		
[NASA-CASE-INP-06942]	c28 N71-23293	SPIES, R.	Observation window for a gas confining chamber	
SOINI, M. E.		[NASA-CASE-NPO-10890]		c11 N73-12265
Apparatus for measuring thermal conductivity		SPIKER, I. K.	Thermal insulation protection means	
Patent		[NASA-CASE-MSC-12737-1]		c34 N77-22423
[NASA-CASE-XGS-01052]	c14 N71-15992	SPITZER, L. A.	Process for the preparation of calcium superoxide	
SOKOLOWSKI, D. E.		[NASA-CASE-ARC-11053-1]		c25 N77-29252
Heat exchanger		SPITZER, C. B.	Evaporant holder	
[NASA-CASE-LEW-12252-1]	c34 N75-19579	[NASA-CASE-XLA-03105]		c15 N69-27483
SOLOMON, G.		Exposure interlock for oscilloscope	cameras	
Error correcting method and apparatus	Patent	[NASA-CASE-LAR-10319-1]		c14 N73-32322
[NASA-CASE-INP-02748]	c08 N71-22749	SPITZIG, W. A.	Method of making a diffusion bonded refractory	
SOLTIS, D. G.		coating	Patent	
Method of making membranes		[NASA-CASE-XLE-01604-2]		c15 N71-15610
[NASA-CASE-INP-04264]	c03 N69-21337	SPRECHER, R. P.	Method of forming a wick for a heat pipe	
Flexible formulated plastic separators for		[NASA-CASE-NPO-13391-1]		c34 N76-27515
alkaline batteries				
[NASA-CASE-LEW-12363-1]	c44 N76-19552			
SOMANO, R. E.				
Durable antistatic coating for				
polymethylmethacrylate				
[NASA-CASE-NPO-13867-1]	c27 N78-14164			
SOMMERSCHEIN, C. B.				
Clear air turbulence detector				
[NASA-CASE-MFS-21244-1]	c36 N75-15028			
Focused laser Doppler velocimeter				
[NASA-CASE-MFS-23178-1]	c35 N77-10493			
SOMMERSCHEIN, G.				
Method for attaching a fused-quartz mirror to a				
conductive metal substrate				
[NASA-CASE-MFS-23405-1]	c26 N77-29260			
SORENSEN, C. B.				
Electric arc device for heating gases	Patent			
[NASA-CASE-XAC-00319]	c25 N70-41628			
SORENSEN, B. E.				
Wind tunnel flow generation section				
[NASA-CASE-ARC-10710-1]	c09 N75-12969			
The engine air intake system				
[NASA-CASE-ARC-10761-1]	c07 N77-18154			

SPRINGER, L. R.
Digital data reformatter/deserializer
[NASA-CASE-NPO-13676-1] c60 N77-24781

SPRINGETT, J. C.
Phase-shift data transmission system having a
pseudo-noise SYNC code modulated with the data
in a single channel Patent
[NASA-CASE-XNP-00911] c08 N70-41961
Audio system with means for reducing noise effects
[NASA-CASE-NPO-11631] c10 N73-12244

SPRINGFIELD, C. L.
Flammability test chamber Patent
[NASA-CASE-KSC-10126] c11 N71-24985
Autoignition test cell Patent
[NASA-CASE-KSC-10198] c11 N71-28629

SPROSS, F. R.
Biological isolation garment Patent
[NASA-CASE-HSC-12206-1] c05 N71-17599

SQUILLARI, W.
System for stabilizing torque between a balloon
and gondola
[NASA-CASE-GSC-11077-1] c02 N73-13008

SQUYRES, H. P.
Uniform variable light source
[NASA-CASE-NPO-11429-1] c74 N77-21941

STABLEY, S. D.
Quick attach and release fluid coupling assembly
Patent
[NASA-CASE-IKS-01985] c15 N71-10782

STAINBACK, J. D.
Exposure interlock for oscilloscope cameras
[NASA-CASE-LAR-10319-1] c14 N73-32322

STALEY, H. W.
Pulse amplitude and width detector Patent
[NASA-CASE-XNP-06519] c09 N71-12519
Pulse rise time and amplitude detector Patent
[NASA-CASE-XNP-08804] c09 N71-24717

STALBY, R. W.
Exposure system for animals Patent
[NASA-CASE-XAC-05333] c11 N71-22875

STALLCOP, J. R.
Measurement of plasma temperature and density
using radiation absorption
[NASA-CASE-ARC-10598-1] c75 N74-30156

STALOFF, C.
Frequency shift keyed demodulator Patent
[NASA-CASE-XGS-02889] c07 N71-11282

STAMPS, J. C.
Television noise reduction device
[NASA-CASE-HSC-12607-1] c32 N75-21485

STANGE, W. C.
Actuator mechanism
[NASA-CASE-GSC-11883-2] c37 N77-15400
Cyclical bi-directional rotary actuator
[NASA-CASE-GSC-11883-1] c37 N77-19458

STARK, K. W.
Endless tape cartridge Patent
[NASA-CASE-XGS-00769] c14 N70-41647
Endless tape transport mechanism Patent
[NASA-CASE-XGS-01223] c07 N71-10609
Annular slit colloid thruster Patent
[NASA-CASE-GSC-10709-1] c28 N71-25213
Micro-pound extended range thrust stand Patent
[NASA-CASE-GSC-10710-1] c28 N71-27094

STARK, M. W.
Solid propellant liner Patent
[NASA-CASE-XNP-09744] c27 N71-16392

STARKEY, D. J.
Torsional disconnect unit
[NASA-CASE-NPO-10704] c15 N72-20445

STARNER, E. E.
Frequency measurement by coincidence detection
with standard frequency
[NASA-CASE-HSC-14649-1] c33 N76-16331

STCLAIR, T. L.
Polyimide adhesives
[NASA-CASE-LAR-12181-1] c27 N78-17205
Mixed diamines for lower melting addition
polyimide preparation and utilization
[NASA-CASE-LAR-12054-1] c27 N78-17218

STECURA, S.
Thermal barrier coating system
[NASA-CASE-LEW-12554-1] c34 N78-18355

STEELE, E. R.
Satellite aided vehicle avoidance system Patent
[NASA-CASE-ERC-10090] c21 N71-24948
Improved satellite aided vehicle avoidance system
[NASA-CASE-ERC-10419] c21 N72-21631

Satellite aided vehicle avoidance system
[NASA-CASE-ERC-10419-1] c03 N75-30132

STEELE, E. R.
Method and apparatus for nondestructive testing
of pressure vessels
[NASA-CASE-NPO-12142-1] c38 N76-28563

STEENHAGEN, G.
Expandable support means
[NASA-CASE-NPO-11059] c15 N72-17454

STEENKEM, J.
Relief valve
[NASA-CASE-XMS-05894-1] c15 N69-21924

STEIN, R. J.
Continuous detonation reaction engine Patent
[NASA-CASE-XNP-06926] c28 N71-22983

STEIN, S.
Injector-valve device Patent
[NASA-CASE-XLE-00303] c15 N70-36535
Rocket engine injector Patent
[NASA-CASE-XLE-00111] c28 N70-38199
Rocket engine injector Patent
[NASA-CASE-XLE-03157] c28 N71-24736

STEINBERG, R.
Solid state power mapping instrument Patent
[NASA-CASE-XLE-00304] c14 N70-36808
Molecular beam velocity selector Patent
[NASA-CASE-XLE-01533] c11 N71-10777
Method of forming metal hydride films
[NASA-CASE-LEW-12083-1] c37 N78-13436

STEINMETZ, C. P.
Energy limiter for hydraulic actuators Patent
[NASA-CASE-ARC-10131-1] c15 N71-27754

STELLEN, J. J.
Recorder/processor apparatus
[NASA-CASE-GSC-11553-1] c35 N74-15831

STELL, R. E.
In situ transfer standard for ultrahigh vacuum
gage calibration
[NASA-CASE-LAR-10862-1] c35 N74-15092

STELLA, A. J.
Electrical connector pin with wiping action
[NASA-CASE-XNP-04238] c09 N69-39734

STELZRIED, C. F.
Reflectometer for receiver input impedance match
measurement Patent
[NASA-CASE-XNP-10843] c07 N71-11267
Multi-feed cone Cassegrain antenna Patent
[NASA-CASE-NPO-10539] c07 N71-11285
Matched thermistors for microwave power meters
Patent
[NASA-CASE-NPO-10348] c10 N71-12554
Broadband microwave waveguide window Patent
[NASA-CASE-XNP-08880] c09 N71-24808
Rotary vane attenuator wherein rotor has
orthogonally disposed resistive and dielectric
cards
[NASA-CASE-NPO-11418-1] c14 N73-13420

STENGEL, R. F.
Wind velocity probing device and method Patent
[NASA-CASE-XLA-02081] c20 N71-16281

STENLUND, S. J.
Rotating mandrel for assembly of inflatable
devices Patent
[NASA-CASE-XLA-04143] c15 N71-17687
Traveling sealer for contoured table Patent
[NASA-CASE-XLA-01494] c15 N71-24164

STEPHANS, J. B.
Low cost solar energy collection system
[NASA-CASE-NPO-13579-1] c44 N78-17460

STEPHENS, D. G.
Flexible ring slosh damping baffle Patent
[NASA-CASE-LAR-10317-1] c32 N71-16103
Instrument for measuring the dynamic behavior of
liquids Patent
[NASA-CASE-XLA-05541] c12 N71-26387
Active vibration isolator for flexible bodies
Patent
[NASA-CASE-LAR-10106-1] c15 N71-27169
Active air cushion control system minimizing
vertical cushion response
[NASA-CASE-LAR-10531-1] c02 N73-13023

STEPHENS, D. L.
Automatic closed circuit television arc guidance
control Patent
[NASA-CASE-NPS-13046] c07 N71-19433

STEPHENS, J. B.
Microbalance including crystal oscillators for
measuring contaminants in a gas system Patent
[NASA-CASE-NPO-10144] c14 N71-17701

Space simulator Patent
[NASA-CASE-NPO-10141] c11 N71-24964

Sampler of gas borne particles
[NASA-CASE-NPO-13396-1] c35 N76-18401

Wind sensor
[NASA-CASE-NPO-13462-1] c35 N76-24524

Cryostat system for temperatures on the order of
2 deg K or less
[NASA-CASE-NPO-13459-1] c31 N77-10229

Solar energy collection system
[NASA-CASE-NPO-13579-2] c44 N77-20565

Low cost solar energy collection system
[NASA-CASE-NPO-13579-3] c44 N77-20566

Internal combustion engine with electrostatic
discharging fuels
[NASA-CASE-NPO-13798-1] c37 N77-25535

Solar pond
[NASA-CASE-NPO-13581-2] c44 N77-28584

STEPHENS, J. R.
Reduced chromium stainless steel alloys
[NASA-CASE-LEW-12543-1] c26 N77-21217

High toughness-high strength iron alloy
[NASA-CASE-LEW-12542-1] c26 N77-24254

STERN, N.
Reversible current control apparatus Patent
[NASA-CASE-XLA-09371] c10 N71-18724

STERRETT, J. R.
Laser grating interferometer Patent
[NASA-CASE-XLA-04295] c16 N71-24170

STETSON, A. R.
Silicide coatings for refractory metals Patent
[NASA-CASE-XLE-10910] c18 N71-29040

STROUD, R. M.
Controlled caging and uncaging mechanism
[NASA-CASE-GSC-11063-1] c37 N77-27400

STEVENSON, L. R.
Aircraft control system
[NASA-CASE-ERC-10439] c02 N73-19004

STEWART, C. B.
Family of frequency to amplitude converters
[NASA-CASE-MSC-12395] c09 N72-25257

Apparatus for statistical time-series analysis
of electrical signals
[NASA-CASE-MSC-12428-1] c10 N73-25240

STEWART, R. B.
Apparatus and method for generating large mass
flow of high temperature air at hypersonic
speeds
[NASA-CASE-LAR-10612-1] c12 N73-28144

STEWART, W. L.
Multistage multiple-reentry turbine Patent
[NASA-CASE-XLE-00170] c15 N70-36412

Multistage multiple-reentry turbine Patent
[NASA-CASE-XLE-00085] c28 N70-39895

STICKLE, J. W.
Direct lift control system Patent
[NASA-CASE-LAR-10249-1] c02 N71-26110

STIFFLER, J. J.
Error correcting method and apparatus Patent
[NASA-CASE-XNP-02748] c08 N71-22749

Encoder/decoder system for a rapidly
synchronizable binary code Patent
[NASA-CASE-NPO-10342] c10 N71-33407

STIGBERG, J. D.
Optical rotational sensor
[NASA-CASE-KSC-10752-1] c15 N73-27407

Signal conditioner test set
[NASA-CASE-KSC-10750-1] c35 N75-12270

STINE, H. A.
Electric arc apparatus Patent
[NASA-CASE-XAC-01677] c09 N71-20816

STIEN, R. J.
High voltage, high current Schottky barrier
solar cell
[NASA-CASE-NPO-13482-1] c44 N78-13526

STJOHN, R. H.
Walking boot assembly
[NASA-CASE-ARC-11101-1] c54 N78-17675

STOCKARD, R. R.
Semiconductor p-n junction stress and strain
sensor
[NASA-CASE-XLA-04980] c09 N69-27422

Method of making semiconductor p-n junction
stress and strain sensor
[NASA-CASE-XLA-04980-2] c14 N72-28438

STOCKER, P. J.
Laser extensometer
[NASA-CASE-MFS-19259-1] c36 N78-14380

STOKES, C. S.
Barium release system
[NASA-CASE-LAR-10670-1] c06 N73-30097

Rocket having barium release system to create
ion clouds in the upper atmosphere
[NASA-CASE-LAR-10670-2] c15 N74-27360

STOLLER, F. W.
Reversible motion drive system Patent
[NASA-CASE-NFO-10173] c15 N71-24696

STONE, F. A.
Synchronous servo loop control system Patent
[NASA-CASE-XNP-03744] c10 N71-20448

STONE, L. R.
Articulated multiple couch assembly Patent
[NASA-CASE-MSC-11253] c05 N71-12343

STONE, R. W., JR.
G conditioning suit Patent
[NASA-CASE-XLA-02898] c05 N71-20268

STONE, S. E.
Fluid sample collector Patent
[NASA-CASE-XMS-06767-1] c14 N71-20435

STORY, A. W.
System for indicating direction of intruder
aircraft
[NASA-CASE-ERC-10226-1] c14 N73-16483

Display system
[NASA-CASE-ERC-10350] c14 N73-20474

STOTLER, C. L., JR.
Integrated gas turbine engine-nacelle
[NASA-CASE-LEW-12389-2] c07 N78-18066

STRAIGHT, D. M.
Rocket motor system Patent
[NASA-CASE-XLE-00323] c28 N70-38505

Gas turbine exhaust nozzle
[NASA-CASE-LEW-11569-1] c07 N74-15453

STRAND, L. D.
Solid propellant rocket motor
[NASA-CASE-NFO-11559] c28 N73-24784

Nitramine propellants
[NASA-CASE-NPO-14103-1] c28 N77-25346

STRANGE, H. G.
Position sensing device employing misaligned
magnetic field generating and detecting
apparatus Patent
[NASA-CASE-IGS-07514] c23 N71-16099

Self-regulating proportionally controlled
heating apparatus and technique
[NASA-CASE-GSC-11752-1] c77 N75-20180

STRASS, H. K.
Motion picture camera for optical pyrometry Patent
[NASA-CASE-XLA-00062] c14 N70-33254

Light intensity modulator controller Patent
[NASA-CASE-XMS-04300] c09 N71-19479

STREED, R. R.
Solar cell Patent
[NASA-CASE-ARC-10050] c03 N71-33409

STRINGHAM, R. S.
Process for producing flame resistant polyamides
and products produced thereby
[NASA-CASE-MSC-16074-1] c27 N77-14262

STRON, T. W.
Spiral groove seal
[NASA-CASE-XLE-10326-2] c15 N72-29488

Spiral groove seal
[NASA-CASE-XLE-10326-4] c37 N74-15125

STRONG, I. J.
Stirring apparatus for plural test tubes Patent
[NASA-CASE-IAC-06956] c15 N71-21177

STRONG, J. R., III
Two-dimensional radiant energy array computers
and computing devices
[NASA-CASE-GSC-11839-1] c60 N77-14751

Analog to digital converter for two-dimensional
radiant energy array computers
[NASA-CASE-GSC-11839-3] c60 N77-32731

Memory device for two-dimensional radiant energy
array computers
[NASA-CASE-GSC-11839-2] c60 N78-10709

STROUP, E. R.
Constant lift rotor for a heavier than air craft
[NASA-CASE-ARC-11045-1] c05 N77-28111

STROUHAL, G.
Thermal insulation protection means
[NASA-CASE-MSC-12737-1] c34 N77-22423

STROUP, E. R.
Electrochemical coulometer and method of forming
same Patent
[NASA-CASE-IGS-05434] c03 N71-20491

STRULL, G.
Solid state television camera system Patent
[NASA-CASE-IXF-06092] c07 N71-24612

STRUZIK, E. A.
Ceramic fiber insulating material and methods of
producing same
[NASA-CASE-MSC-14795-1] c27 N76-15314

STUART, J. L.
Automated fluid chemical analyzer Patent
[NASA-CASE-IXF-09451] c06 N71-26754

STUART, J. W.
Fire resistant coating composition Patent
[NASA-CASE-GSC-10072] c18 N71-14014
Diffuse reflective coating
[NASA-CASE-GSC-11214-1] c06 N73-13128

STUCKEY, J. B.
Panelized high performance multilayer insulation
Patent
[NASA-CASE-MFS-14023] c33 N71-25351
Cryogenic thermal insulation Patent
[NASA-CASE-IXF-05046] c33 N71-28892

STUDENICK, D. K.
System for stabilizing torque between a balloon
and gondola
[NASA-CASE-GSC-11077-1] c02 N73-13008
Fluid sampling device
[NASA-CASE-GSC-12143-1] c35 N77-32456

STUDER, P. A.
Electronic beam switching commutator Patent
[NASA-CASE-IGS-01451] c09 N71-10677
Direct current motor with stationary armature
and field Patent
[NASA-CASE-IGS-05290] c09 N71-25999
Helical recorder arrangement for multiple
channel recording on both sides of the tape
[NASA-CASE-GSC-10614-1] c09 N72-11224
Electric motive machine including magnetic bearing
[NASA-CASE-IGS-07805] c15 N72-33476
Magnetic bearing
[NASA-CASE-GSC-11079-1] c37 N75-18574
Mechanical capacitor
[NASA-CASE-GSC-12030-1] c44 N76-30652
Magnetic bearing system
[NASA-CASE-GSC-11978-1] c37 N77-17464
Three phase full wave dc motor decoder
[NASA-CASE-GSC-11824-1] c33 N77-26386

STUMP, E. C., JR.
Hydroxy terminated perfluoro ethers Patent
[NASA-CASE-NPO-10768] c06 N71-27254
Perfluoro polyether acyl fluorides
[NASA-CASE-NPO-10765] c06 N72-20121
Polyurethane resins from hydroxy terminated
perfluoro ethers
[NASA-CASE-NPO-10768-2] c06 N72-27144
Highly fluorinated polyurethanes
[NASA-CASE-NPO-10767-2] c06 N72-27151
Highly fluorinated polyurethanes
[NASA-CASE-NPO-10767-1] c06 N73-33076

STURGIS, A. C.
Multiparameter vision testing apparatus
[NASA-CASE-MSC-13601-2] c54 N75-27759

STURN, R. G.
Self-recording portable soil penetrometer
[NASA-CASE-MFS-20774] c14 N73-19420

STURMAN, J. C.
Pulsed differential comparator circuit Patent
[NASA-CASE-IXE-03804] c10 N71-19471

STYLES, C. B.
Spherical solid-propellant rocket motor Patent
[NASA-CASE-IXA-00105] c28 N70-33331

SUDEY, J.
Low speed phaselock speed control system
[NASA-CASE-GSC-11127-1] c09 N75-24758

SULLIVAN, D. B.
Electrical insulating layer process
[NASA-CASE-LFW-10489-1] c15 N72-25447

SULLIVAN, B. H.
Ablation article and method
[NASA-CASE-LAR-10439-1] c33 N73-27796

SULLIVAN, J. L.
Self-contained breathing apparatus
[NASA-CASE-MSC-14733-1] c54 N76-24900

SULLIVAN, T. B.
Waveguide mixer
[NASA-CASE-ERC-10179] c07 N72-20141

SUNIDA, J. T.
Miniature multichannel biotelemeter system
[NASA-CASE-NPO-13065-1] c52 N74-26625

SUNMERFIELD, D. G.
Wind tunnel model and method
[NASA-CASE-LAR-10812-1] c09 N74-17955

SUNNERS, R. B.
Geneva mechanism
[NASA-CASE-NPO-13281-1] c37 N75-13266

SUTLIFF, J. D.
Wing deployment method and apparatus Patent
[NASA-CASE-XMS-00907] c02 N70-41630

SWAIN, R. L.
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 [NASA-CASE-MFS-21042] c07 N72-25171
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 [NASA-CASE-LAR-11042-1] c33 N75-27252
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 [NASA-CASE-LAR-11549-1] c37 N77-11397
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 Acoustically swept rotor
 [NASA-CASE-ARC-11106-1] c05 N77-31130
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 Apparatus for establishing flow of a fluid mass
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 Angular position and velocity sensing apparatus
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 [NASA-CASE-XGS-05680] c14 N71-17585
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 [NASA-CASE-XGS-04227] c15 N71-21744
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 [NASA-CASE-GSC-10065-1] c10 N71-27136
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 Facsimile video remodulation network
 [NASA-CASE-GSC-10185-1] c07 N72-12081
VERMILLION, C. R.
 Resistance soldering apparatus
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VERMIKOS-DANELIS, J.
 Indomethacin-antihistamine combination for
 gastric ulceration control
 [NASA-CASE-ARC-11118-1] c52 N78-11692
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 [NASA-CASE-HQH-10790-1] c36 N74-11313
VICK, A. R.
 Method of obtaining permanent record of surface
 flow phenomena Patent
 [NASA-CASE-XLA-01353] c14 N70-41366
VICK, B. A.
 Blood pressure measuring system for separating
 and separately recording dc signal and an ac
 signal Patent
 [NASA-CASE-XMS-06061] c05 N71-23317
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 Intermittent type silica gel adsorption
 refrigerator Patent
 [NASA-CASE-INP-00920] c15 N71-15906
VIIRKINSALO, S. J.
 Helmet latching and attaching ring
 [NASA-CASE-XMS-04670] c54 N78-17678
VILLARREAL, S.
 Receiving and tracking phase modulated signals
 [NASA-CASE-MSC-16170-1] c32 N77-12248
VINAL, A. W.
 Redundant memory organization Patent
 [NASA-CASE-GSC-10564] c10 N71-29135
VINCENT, J. S.
 Method of forming thin window drifted silicon
 charged particle detector Patent
 [NASA-CASE-XLE-00808] c24 N71-10560
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 Magnifying image intensifier
 [NASA-CASE-GSC-12010-1] c74 N78-18905
VIVIAN, H. C.
 Photosensitive device to detect bearing
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 [NASA-CASE-INP-00438] c21 N70-35089
 Space vehicle attitude control Patent
 [NASA-CASE-INP-00465] c21 N70-35395
 Remodulator filter Patent
 [NASA-CASE-MFO-10198] c09 N71-24806
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 Magnetic recording head and method of making
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 [NASA-CASE-GSC-10097-1] c08 N71-27210
VOGELBY, A. W.
 Cable arrangement for rigid tethering Patent
 [NASA-CASE-XLA-02332] c32 N71-17609
 Combined optical attitude and altitude
 indicating instrument Patent
 [NASA-CASE-XLA-01907] c14 N71-23268
VOLK, G. C.
 A portable device particularly suited for use in
 starting air-start units for aircraft
 [NASA-CASE-FRC-10113-1] c09 N78-19166
VOLKOFF, J. J.
 Electro-optical scanning apparatus Patent
 Application
 [NASA-CASE-MPO-11106] c14 N70-34697
VOLPE, F. A.
 Sun tracker with rotatable plane-parallel plate
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 [NASA-CASE-XGS-01159] c21 N71-10678
 Attitude control system Patent
 [NASA-CASE-XGS-04393] c21 N71-14159
 Star scanner
 [NASA-CASE-GSC-11569-1] c89 N74-30886
VONFRAGENAU, G. L.
 Support apparatus for dynamic testing Patent
 [NASA-CASE-IMP-01772] c11 N70-41677
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 [NASA-CASE-IMP-03248] c11 N71-10604
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 [NASA-CASE-MFS-22734-1] c18 N75-19329
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 [NASA-CASE-MFS-22905-1] c19 N76-22284
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 [NASA-CASE-MFS-22787-1] c15 N77-10113
VONROOS, O.
 Method and apparatus for measuring minority
 carrier lifetimes and bulk diffusion length in
 P-N junction solar cells
 [NASA-CASE-MPO-14100-1] c44 N78-19608
VONTIRSENHAUSEN, G. F.
 Energy absorbing device Patent
 [NASA-CASE-XNF-10040] c15 N71-22877
VORHABEN, K. H.
 System for producing chroma signals
 [NASA-CASE-MSC-14683-1] c74 N77-18893
VORKINE, B. G.
 Variable frequency nuclear magnetic resonance
 spectrometer Patent
 [NASA-CASE-INP-09830] c14 N71-26266

VRANAS, T.
 Impact energy absorber Patent
 [NASA-CASE-XLA-01530] c14 N71-23092
 High temperature strain gage calibration fixture
 [NASA-CASE-LAR-11500-1] c35 N76-24523

VUKELICH, E. K.
 Method and device for detecting voids in low
 density material Patent
 [NASA-CASE-MFS-20044] c14 N71-28993

VYUKHAL, E. C.
 Universal pilot restraint suit and body support
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 [NASA-CASE-XAC-00405] c05 N70-41819
 Hard space suit Patent
 [NASA-CASE-XAC-07043] c05 N71-23161
 Locomotion and restraint aid Patent
 [NASA-CASE-ARC-10153] c05 N71-28619
 Space suit having improved waist and torso
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 [NASA-CASE-ARC-10275-1] c05 N72-22092
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 [NASA-CASE-ARC-11059-1] c54 N77-14743
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 [NASA-CASE-ARC-11101-1] c54 N78-17675
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 [NASA-CASE-ARC-11058-2] c54 N78-18763

W

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WAGES, C. G.
 Ultrasonic scanning system for in-place
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WAGNER, A. P.
 Inverter ratio failure detector
 [NASA-CASE-NPO-13160-1] c35 N74-18090

WAGNER, C. A.
 Rotating raster generator
 [NASA-CASE-FRC-10071-1] c32 N74-20813

WAGNER, E. E.
 Collapsible loop antenna for space vehicle Patent
 [NASA-CASE-XMP-00437] c07 N70-40202

WAKELYN, W. T.
 Production of high purity silicon carbide Patent
 [NASA-CASE-XLA-00158] c26 N70-36805
 Apparatus for producing high purity silicon
 carbide crystals Patent
 [NASA-CASE-XLA-02057] c26 N70-40015
 Method of coating carbonaceous base to prevent
 oxidation destruction and coated base Patent
 [NASA-CASE-XLA-00284] c15 N71-16075
 Method of coating carbonaceous base to prevent
 oxidation destruction and coated base Patent
 [NASA-CASE-XLA-00302] c15 N71-16077
 Thermal control coating Patent
 [NASA-CASE-XLA-01995] c18 N71-23047

WALD, D.
 Differential temperature transducer Patent
 [NASA-CASE-XAC-00812] c14 N71-15598

WALKER, D. J.
 Flame detector operable in presence of proton
 radiation
 [NASA-CASE-MFS-21577-1] c19 N74-29410

WALKER, E. J.
 An annular wing
 [NASA-CASE-FRC-11007-1] c02 N78-19055

WALKER, E. H.
 Space environmental work simulator Patent
 [NASA-CASE-XMP-07488] c11 N71-18773

WALKER, W. L.
 Lightweight reflector assembly
 [NASA-CASE-NPO-13707-1] c74 N77-28933

WALL, E. J.
 Automated clinical system for chromosome analysis
 [NASA-CASE-NPO-13913-1] c52 N77-19750

WALL, W. A., JR.
 Apparatus for welding torch angle and seam
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 [NASA-CASE-XMP-03287] c15 N71-15607
 Automatic closed circuit television arc guidance
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 [NASA-CASE-MFS-13046] c07 N71-19433
 Automatic welding speed controller Patent
 [NASA-CASE-XMP-01730] c15 N71-23050
 Welding skate with computerized control Patent
 [NASA-CASE-XMP-07069] c15 N71-23815
 Internal flare angle gauge Patent
 [NASA-CASE-XMP-04415] c14 N71-24693
 Computerized system for translating a torch head
 [NASA-CASE-MFS-23620-1] c37 N77-24497

WALLACE, E. D.
 Apparatus for tensile testing Patent
 [NASA-CASE-XKS-06250] c14 N71-15600
 Valve seat with resilient support member Patent
 [NASA-CASE-XKS-02582] c15 N71-21234
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 [NASA-CASE-XKS-07953] c15 N71-26134

WALLACE, G. E.
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 [NASA-CASE-MFS-22671-1] c35 N75-21582
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 [NASA-CASE-MFS-22671-2] c35 N77-17426

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 Differential phase shift keyed communication
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 [NASA-CASE-MSC-14065-1] c32 N74-26654
 Differential phase shift keyed signal resolver
 [NASA-CASE-MSC-14066-1] c33 N74-27705

WALLIO, E. A.
 Electric-arc heater Patent
 [NASA-CASE-XLA-00330] c33 N70-34540

WALSH, J. E.
 Specific wavelength colorimeter
 [NASA-CASE-MSC-14081-1] c35 N74-27860

WALSH, T. C.
 Vibration damping system Patent
 [NASA-CASE-XMS-01620] c23 N71-15673

WALSH, T. J.
 Apparatus for making a metal slurry product Patent
 [NASA-CASE-XLE-00010] c15 N70-33382

WALSH, T. H.
 Interferometric rotation sensor
 [NASA-CASE-ARC-10278-1] c14 N73-25463

WALTER, E. O.
 Method of crystallization
 [NASA-CASE-MFS-23001-1] c76 N77-32919

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 Telespectrograph Patent
 [NASA-CASE-XLA-03273] c14 N71-18699

WALTON, T. S.
 Electronic checkout system for space vehicles
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 [NASA-CASE-XKS-08012-2] c31 N71-15566

WANG, G. Y.
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 [NASA-CASE-ERC-10180-1] c60 N74-20836

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 [NASA-CASE-NPO-13303-1] c20 N75-24837
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 [NASA-CASE-NPO-13802-1] c71 N78-10837

WARD, D. E.
 Automatically deploying nozzle exit cone
 extension Patent
 [NASA-CASE-XLE-01640] c31 N71-15637

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 Capacitor power pak Patent Application
 [NASA-CASE-LAR-10367-1] c03 N70-26817

WARD, J. F.
 Variable geometry rotor system
 [NASA-CASE-LAR-10557] c02 N72-11018

WARD, J. O.
 Digital automatic gain amplifier
 [NASA-CASE-KSC-11008-1] c33 N77-21321

WARD, W. D.
 Vapor liquid separator Patent
 [NASA-CASE-XMP-04042] c15 N71-23023

WARKENTINE, D. K.
 Automatic battery charger Patent
 [NASA-CASE-XMP-04758] c03 N71-24605

- WARNECK, P.
Analytical photoionization mass spectrometer
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[NASA-CASE-LAR-10180-1] c06 N71-13461
- WARREN, A. P.
Assembly for recovering a capsule Patent
[NASA-CASE-XMF-00641] c31 N70-36410
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[NASA-CASE-XMF-03169] c31 N71-15675
Method and apparatus for securing to a
spacecraft Patent
[NASA-CASE-MFS-11133] c31 N71-16222
- WATERS, W. J.
Nickel-base alloy Patent
[NASA-CASE-XLE-00283] c17 N70-36616
Nickel-base alloy containing Mo-W-Al-Cr-
Ta-Zr-C-Nb-B Patent
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Nickel base alloy
[NASA-CASE-LEW-10874-1] c17 N72-22535
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[NASA-CASE-LEW-10805-1] c15 N73-13465
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[NASA-CASE-LEW-10805-3] c26 N74-10521
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[NASA-CASE-LEW-10805-2] c37 N74-13179
Nickel base alloy
[NASA-CASE-LEW-12270-1] c26 N77-32280
- WATSON, J. D.
Tumbler system to provide random motion
[NASA-CASE-XGS-02437] c15 N69-21472
- WATSON, J. E.
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[NASA-CASE-XLE-00660] c28 N70-39925
- WATSON, M. D.
Payload/burned-out motor case separation system
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[NASA-CASE-XLA-05369] c31 N71-15687
- WATSON, V. R.
Electric arc apparatus Patent
[NASA-CASE-XAC-01677] c09 N71-20816
- WAYLAND, H. J.
Servo-controlled intravitral microscope system
[NASA-CASE-NPO-13214-1] c35 N75-25123
- WEAR, J. D.
Rocket engine Patent
[NASA-CASE-XLE-00342] c28 N70-37980
- WEATHERS, G. D.
Pseudo-noise test set for communication system
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[NASA-CASE-MFS-22671-1] c35 N75-21582
Method of and means for testing a tape
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- WEAVER, L. B.
Multiple in-line docking capability for rotating
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- WEAVER, O.
Charge injection method and apparatus of
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[NASA-CASE-MFS-23186-1] c33 N76-23483
- WEBB, D. D.
Sprayable low density ablator
[NASA-CASE-MFS-23506-1] c24 N77-15105
- WEBB, D. L.
Video sync processor Patent
[NASA-CASE-KSC-10002] c10 N71-25865
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- WEBB, J. A., JR.
Circuit for detecting initial systole and
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[NASA-CASE-LEW-11581-1] c54 N75-13531
- WEBB, J. B.
Delayed simultaneous release mechanism
[NASA-CASE-GSC-10814-1] c03 N73-20039
- WEBBON, B. W.
An improved cooling system for removing
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[NASA-CASE-ARC-11059-1] c54 N77-14743
Tubular sublimatory evaporator heat sink
[NASA-CASE-ARC-10912-1] c34 N77-19353
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- WEBER, G. R.
Method of making reinforced composite structure
[NASA-CASE-LEW-12619-1] c24 N77-19171
- WEBER, G. J.
Multiple circuit protector device
[NASA-CASE-XMS-02744] c33 N75-27249
- WEBER, L.
Prevention of hydrogen embrittlement of high
strength steel by hydrazine compositions
[NASA-CASE-NPO-12122-1] c24 N76-14203
- WEBER, R. J.
Venting vapor apparatus Patent
[NASA-CASE-XLE-00288] c15 N70-34247
Supersonic-combustion rocket
[NASA-CASE-LEW-11058-1] c20 N74-13502
- WEBSTER, J. A.
Perfluoro alkylene dioxy-bis-(4-phthalic
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[NASA-CASE-MFS-22356-1] c23 N75-30256
Polyimides of ether-linked aryl tetracarboxylic
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[NASA-CASE-MFS-22355-1] c23 N76-15268
- WESTON, J. W.
Reinforced metallic composites Patent
[NASA-CASE-XLE-02428] c17 N70-33288
Method of making fiber reinforced metallic
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[NASA-CASE-XLE-00231] c17 N70-38198
Reinforced metallic composites Patent
[NASA-CASE-XLE-00228] c17 N70-38490
Method for producing fiber reinforced metallic
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[NASA-CASE-XLE-03925] c18 N71-22894
Process for producing dispersion strengthened
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[NASA-CASE-XLE-06969] c17 N71-24142
Method of producing refractory composites
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[NASA-CASE-XLE-03940] c18 N71-26153
Method of making fiber composites
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Refractory metal base alloy composites
[NASA-CASE-XLE-03940-2] c17 N72-28536
- WEIDENHAFER, J. H.
Isolation coupling arrangement for a torque
measuring system
[NASA-CASE-XLA-04897] c15 N72-22482
- WEIDMAN, D. J.
High intensity heat and light unit Patent
[NASA-CASE-XLA-00141] c09 N70-33312
- WEINGART, J. H.
Stacked solar cell arrays
[NASA-CASE-NPO-11771] c03 N73-20040
- WEINSTEIN, L.
Application of luciferase assay for ATP to
antimicrobial drug susceptibility
[NASA-CASE-GSC-12039-1] c51 N77-22794
Determination of antimicrobial susceptibilities
of infected urines without isolation
[NASA-CASE-GSC-12046-1] c52 N77-26797
- WEINSTEIN, M.
Bonding thermoelectric elements to nonmagnetic
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[NASA-CASE-XGS-04554] c15 N69-39786
Segmenting lead telluride-silicon germanium
thermoelements Patent
[NASA-CASE-XGS-05718] c26 N71-16037
- WEISS, P. F.
Acquisition and tracking system for optical radar
[NASA-CASE-MFS-20125] c16 N72-13437
- WEISS, S.
Pretreatment method for anti-wettable materials
[NASA-CASE-IMS-03537] c15 N69-21471
- WEITZEL, D. F.
Propellant tank pressurization system Patent
[NASA-CASE-XNP-00650] c27 N71-28929
- WEITZEL, D. H.
Resilience testing device Patent
[NASA-CASE-XLA-08254] c14 N71-26161
- WELCH, W. A.
Gas filter mounting structure
[NASA-CASE-HSC-12297] c14 N72-23457
- WELLING, C. E.
Thermally activated foaming compositions Patent
[NASA-CASE-LAR-10373-1] c18 N71-26155

INVENTOR INDEX

WIECH, E. E.

WELLMAN, J. B.
Gas flow control device
[NASA-CASE-WFO-11479] c15 N73-13462

WELLS, A. F.
Water system virus detection
[NASA-CASE-MSC-16098-1] c51 N77-24755

WELLS, B. B.
Apparatus for ejection of an instrument cover
[NASA-CASE-IMP-04132] c15 N69-27502

WELLS, F. E.
Positive displacement flowmeter Patent
[NASA-CASE-IMP-02822] c14 N70-41994
Remote control manipulator for zero gravity
environment
[NASA-CASE-MFS-14405] c15 N72-28495

WELLS, W. E.
Rotable accurate reflector system for telescopes
Patent
[NASA-CASE-WFO-10468] c23 N71-33229

WELLS, W. L.
Electric-arc heater Patent
[NASA-CASE-XLA-00330] c33 N70-34540

WENDT, A. J.
Rotating mandrel for assembly of inflatable
devices Patent
[NASA-CASE-XLA-04143] c15 N71-17687

WEBER, G. E.
Amplifier drift tester
[NASA-CASE-IMS-05562-1] c09 N69-39986

WEBER, E. A.
Method and apparatus for making curved
reflectors Patent
[NASA-CASE-XLE-08917] c15 N71-15597
Apparatus for making curved reflectors Patent
[NASA-CASE-XLE-08917-2] c15 N71-24836

WESSELSKI, C. J.
Energy absorbing structure Patent Application
[NASA-CASE-MSC-12279-1] c15 N70-35679
Low onset rate energy absorber
[NASA-CASE-MSC-12279] c15 N72-17450

WEST, R. L.
Device for handling printed circuit cards Patent
[NASA-CASE-MFS-20453] c15 N71-29133

WEST, R. W., JR.
Method and apparatus for making a heat
insulating and ablative structure Patent
[NASA-CASE-IMS-02009] c33 N71-20834

WESTBROOK, R. E.
Electrode construction Patent
[NASA-CASE-ARC-10043-1] c05 N71-11193

WESTER, G. W.
The dc-to-dc converters employing
staggered-phase power switches with two-loop
control
[NASA-CASE-WFO-13512-1] c33 N77-10428
Phase substitution of spare converter for a
failed one of parallel phase staggered
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[NASA-CASE-WFO-13812-1] c33 N77-30365

WESTON, K. C.
Heat shield Patent
[NASA-CASE-IMS-00486] c33 N70-33344

WESTPHAL, J. A.
Method and apparatus for aligning a laser beam
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[NASA-CASE-WFO-11087] c23 N71-29125

WETHORE, J. W.
Aircraft instrument Patent
[NASA-CASE-XLA-00487] c14 N70-40157

WETZLER, D. G.
Thrust-isolating mounting
[NASA-CASE-MFS-21680-1] c18 N74-27397

WEYLER, G. E., JR.
An improved rotatable mass for a flywheel
[NASA-CASE-MFS-23051-1] c37 N76-13500

WEZNER, F. S.
Collapsible reflector Patent
[NASA-CASE-IMS-03454] c09 N71-20658

WHEATLEY, D. G.
Hermetic sealed vibration damper Patent
[NASA-CASE-MSC-10959] c15 N71-26243

WHEELER, E. E.
Method and apparatus for stable silicon dioxide
layers on silicon grown in silicon nitride
ambient
[NASA-CASE-HBC-10073-1] c24 N74-19769

WHEELER, S.
Wind tunnel microphone structure Patent
[NASA-CASE-IMP-00250] c11 N71-28779

WHEELER, S. B.
Fluid containers and resealable septum therefor
Patent
[NASA-CASE-WFO-10123] c15 N71-24835

WHIPPLE, E. L.
Grain refinement control in TIG arc welding
[NASA-CASE-MSC-19095-1] c37 N75-19683

WHIPPLE, D. W.
Microcircuit negative cutter
[NASA-CASE-XLA-09843] c15 N72-27485

WHIPPLE, E. C., JR.
Method and apparatus for determining satellite
orientation utilizing spatial energy sources
Patent
[NASA-CASE-XGS-00466] c21 N70-34297

WHISENANT, J. T.
Inspection gage for boss Patent
[NASA-CASE-IMP-04966] c14 N71-17658

WHITACRE, R. E.
Quick release hook tape Patent
[NASA-CASE-IMS-10660-1] c15 N71-25975
Scientific experiment flexible mount
[NASA-CASE-MSC-12372-1] c31 N72-25842

WHITCOMB, E. T.
Airfoil shape for flight at subsonic speeds
[NASA-CASE-LAR-10585-1] c02 N76-22154

WHITE, A. R.
Scientific experiment flexible mount
[NASA-CASE-MSC-12372-1] c31 N72-25842

WHITE, E. C.
Method of making pressurized panel Patent
[NASA-CASE-XLA-08916] c15 N71-29018
Pressurized panel
[NASA-CASE-XLA-08916-2] c14 N73-28487
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[NASA-CASE-LAR-10776-1] c02 N74-10034

WHITE, F. A.
Coincidence apparatus for detecting particles
[NASA-CASE-XLA-07813] c14 N72-17328

WHITE, J. A.
Magnetically centered liquid column float Patent
[NASA-CASE-XAC-00030] c14 N70-34820

WHITE, W. F.
Dual resonant cavity absorption cell Patent
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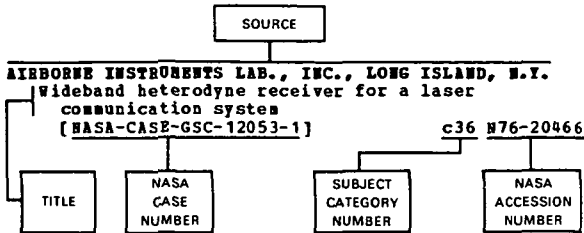
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BALDWIN ELECTRONICS, INC., LITTLE ROCK, ARK.
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SOURCE

[NASA-CASE-IBQ-01208]	c15	N70-35409	Flight control system	
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Gas turbine combustion apparatus Patent
[NASA-CASE-XLE-103477-1] c28 N71-20330

CUTLER-HAMMER, INC., MELVILLE, N.Y.
Wideband heterodyne receiver for laser
communication system
[NASA-CASE-GSC-12053-1] c32 N77-28346

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DELAWARE UNIV., NEWARK.
High field CdS detector for infrared radiation
[NASA-CASE-LAR-11027-1] c35 N74-18088

DENVER UNIV., COLO.
Metal shearing energy absorber
[NASA-CASE-HQN-10638-1] c15 N73-30460

DEPARTMENT OF TRANSPORTATION, CAMBRIDGE, MASS.
Optical noise suppression device and method
[NASA-CASE-MSC-12640-1] c74 N76-31998

DORNE AND HARGOLIN, INC., BOHEMIA, N.Y.
Nose cone mounted heat resistant antenna Patent
[NASA-CASE-XMS-04312] c07 N71-22984

DOUGLAS AIRCRAFT CO., INC., SANTA MONICA, CALIF.
Recoverable single stage spacecraft booster Patent
[NASA-CASE-XMF-01973] c31 N70-41588

Switching circuit employing regeneratively
connected complementary transistors Patent
[NASA-CASE-XNP-02654] c10 N70-42032

Split nut separation system Patent
[NASA-CASE-XNP-06914] c15 N71-21489

Artificial gravity spin deployment system Patent
[NASA-CASE-XNP-02595] c31 N71-21881

Portable superclean air column device Patent
[NASA-CASE-XMF-03212] c15 N71-22721

Energy absorption device Patent
[NASA-CASE-XNP-01848] c15 N71-28959

Collapsible pistons
[NASA-CASE-MSC-13789-1] c11 N73-32152

DURK UNIV., DURHAM, N. C.
Regulated dc-to-dc converter for voltage step-up
or step-down with input-output isolation
[NASA-CASE-HQN-10792-1] c33 N74-11049

DUMONT ELECTRON TUBES, CLIFTON, N. J.
High contrast cathode ray tube
[NASA-CASE-BBC-10468] c09 N72-20206

E

EITEL-MCCULLOUGH, INC., SAN CARLOS, CALIF.
 Method of forming ceramic to metal seal Patent
 [NASA-CASE-XNP-01263-2] c15 N71-26312

ELECTRAC, INC., ANAHEIM, CALIF.
 Optimum predetection diversity receiving system
 Patent
 [NASA-CASE-XGS-00740] c07 N71-23098

ELECTRIC STORAGE BATTERY CO., RALEIGH, N.C.
 Electric battery and method for operating same
 Patent
 [NASA-CASE-XGS-01674] c03 N71-29129

ELECTRO-OPTICAL SYSTEMS, INC., PASADENA, CALIF.
 Focussing system for an ion source having
 apertured electrodes Patent
 [NASA-CASE-XNP-03332] c09 N71-10618

Electrolytically regenerative hydrogen-oxygen
 fuel cell Patent
 [NASA-CASE-XLE-04526] c03 N71-11052

Method of producing refractory bodies having
 controlled porosity Patent
 [NASA-CASE-LEW-10393-1] c17 N71-15468

Soil particles separator, collector and viewer
 Patent
 [NASA-CASE-XNP-09770] c15 N71-20440

Particle detection apparatus including a
 ballistic pendulum Patent
 [NASA-CASE-XNS-04201] c14 N71-22990

Polarity sensitive circuit Patent
 [NASA-CASE-XNP-00952] c10 N71-23271

Ion engine casing construction and method of
 making same Patent
 [NASA-CASE-XNP-06942] c28 N71-23293

Material handling device Patent
 [NASA-CASE-XNP-09770-3] c11 N71-27036

Screen particle separator
 [NASA-CASE-XNP-09770-2] c15 N72-22483

ELECTRONIC IMAGE SYSTEMS CORP., CAMBRIDGE, MASS.
 Drying apparatus for photographic sheet material
 [NASA-CASE-GSC-11074-1] c14 N73-28489

ESB, INC., RALEIGH, N.C.
 Storage battery comprising negative plates of a
 wedge shaped configuration
 [NASA-CASE-NPO-11806-1] c44 N74-19693

ESB, INC., YARDBLEY, PA.
 Electric storage battery
 [NASA-CASE-NPO-11021] c03 N72-20032

EWEN KNIGHT CORP., EAST HATICK, MASS.
 Method and means for providing an absolute power
 measurement capability Patent
 [NASA-CASE-EBC-11020] c14 N71-26774

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FAIRCHILD HILLER CORP., GERRHANTOWN, MD.
 Two axis fluxgate magnetometer Patent
 [NASA-CASE-GSC-10441-1] c14 N71-27325

Space simulation and radiative property testing
 system and method Patent
 [NASA-CASE-NFS-20096] c14 N71-30026

Thermal control system for a spacecraft modular
 housing
 [NASA-CASE-GSC-11018-1] c31 N73-30829

PARADAY LABS., INC., LA JOLLA, CALIF.
 Method for attaching a fused-quartz mirror to a
 conductive metal substrate
 [NASA-CASE-NFS-23405-1] c26 N77-29260

FEDERAL-MOGUL CORP., LOS ALAMITOS, CALIF.
 Hydraulic casting of liquid polymers Patent
 [NASA-CASE-XNP-07659] c06 N71-22975

FLORIDA UNIV., GAINESVILLE.
 Safety flywheel
 [NASA-CASE-HQN-10888-1] c37 N77-22484

FMC CORP., NEW YORK.
 Decomposition unit Patent
 [NASA-CASE-XNS-00583] c28 N70-38504

FOOTHILL COLLEGE, LOS ALTOS HILLS, CALIF.
 Electrical conductivity cell and method for
 fabricating the same
 [NASA-CASE-ABC-10810-1] c33 N76-19339

FORD MOTOR CO., DEARBORN, MICH.
 Omnidirectional acceleration device Patent
 [NASA-CASE-HQN-10780] c14 N71-30265

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GARRETT CORP., LOS ANGELES, CALIF.
 Relief valve
 [NASA-CASE-XNS-05894-1] c15 N69-21924

Portable environmental control system Patent
 [NASA-CASE-XNS-09632-1] c05 N71-11203

Dual latching solenoid valve Patent
 [NASA-CASE-XNS-05890] c09 N71-23191

Water management system and an electrolytic cell
 therefor Patent
 [NASA-CASE-HSC-10960-1] c03 N71-24718

Low cycle fatigue testing machine
 [NASA-CASE-LAR-10270-1] c32 N72-25877

Process for separation of dissolved hydrogen
 from water by use of palladium and process for
 coating palladium with palladium black
 [NASA-CASE-HSC-13335-1] c06 N72-31140

Flexible joint for pressurizable garment
 [NASA-CASE-HSC-11072] c54 N74-32546

Gas compression apparatus
 [NASA-CASE-HSC-14757-1] c35 N78-10428

GCA CORP., BEDFORD, MASS.
 Analytical photoionization mass spectrometer
 with an argon gas filter between the light
 source and monochrometer Patent
 [NASA-CASE-LAR-10180-1] c06 N71-13461

GENERAL DYNAMICS/ASTRONAUTICS, SAN DIEGO, CALIF.
 Determination of spot weld quality Patent
 [NASA-CASE-XNP-02588] c15 N71-18613

Pressure transducer calibrator Patent
 [NASA-CASE-XNP-01660] c14 N71-23036

Plating nickel on aluminum castings
 [NASA-CASE-XNP-04148] c17 N71-24830

GENERAL DYNAMICS/CONVAIR, SAN DIEGO, CALIF.
 Signal generator
 [NASA-CASE-XNP-05612] c09 N69-21468

Separation nut Patent
 [NASA-CASE-XGS-01971] c15 N71-15922

Zero gravity separator Patent
 [NASA-CASE-XLE-00586] c15 N71-15968

Catalyst cartridge for carbon dioxide reduction
 unit
 [NASA-CASE-LAR-10551-1] c25 N74-12813

Heat exchanger
 [NASA-CASE-MFS-22991-1] c34 N77-10463

GENERAL DYNAMICS CORP., SAN DIEGO, CALIF.
 Light radiation direction indicator with a
 baffle of two parallel grids
 [NASA-CASE-XNP-03930] c14 N69-24331

Method and apparatus for attaching physiological
 monitoring electrodes Patent
 [NASA-CASE-XPR-07658-1] c05 N71-26293

Driving lamps by induction
 [NASA-CASE-MFS-21214-1] c09 N73-30181

GENERAL ELECTRIC CO., CINCINNATI, OHIO.
 Dual output variable pitch turbofan actuation
 system
 [NASA-CASE-LEW-12419-1] c07 N77-14025

Reverse pitch fan with divided splitter
 [NASA-CASE-LEW-12760-1] c07 N77-17059

Leading edge protection for composite blades
 [NASA-CASE-LEW-12550-1] c24 N77-19170

Oil cooling system for a gas turbine engine
 [NASA-CASE-LEW-12830-1] c07 N77-23106

Blade retainer assembly
 [NASA-CASE-LEW-12608-1] c07 N77-27116

Platform for a swing root turbomachinery blade
 [NASA-CASE-LEW-12312-1] c07 N77-32148

Deformable bearing seat
 [NASA-CASE-LEW-12527-1] c37 N77-32500

Bearing seat usable in a gas turbine engine
 [NASA-CASE-LEW-12477-1] c37 N77-32501

Oil cooling system for a gas turbine engine
 [NASA-CASE-LEW-12321-1] c37 N78-10467

Impact absorbing blade mounts for variable pitch
 blades
 [NASA-CASE-LEW-12313-1] c37 N78-10468

Variable thrust nozzle for quiet turbofan engine
 and method of operating same
 [NASA-CASE-LEW-12317-1] c07 N78-17055

Gas turbine engine with convertible accessories
 [NASA-CASE-LEW-12390-1] c07 N78-17056

Variable cycle gas turbine engines
 [NASA-CASE-LEW-12916-1] c37 N78-17384

GENERAL ELECTRIC CO., CLEVELAND, OHIO.
 Variable mixer propulsion cycle
 [NASA-CASE-LEW-12917-1] c07 N78-18067

GENERAL ELECTRIC CO., PHILADELPHIA, PA.
Catalyst for growth of boron carbide single crystal whiskers
[NASA-CASE-XBQ-03903] c15 N69-21922
Didymium hydrate additive to nickel hydroxide electrodes Patent
[NASA-CASE-XGS-03505] c03 N71-10608
Bismuth-lead coatings for gas bearings used in atmospheric environments and vacuum chambers Patent
[NASA-CASE-XGS-02011] c15 N71-20739
Automatic control of liquid cooling garment by cutaneous and external auditory meatus temperatures
[NASA-CASE-MSC-13917-1] c05 N72-15098
Method for measuring cutaneous sensory perception
[NASA-CASE-MSC-13609-1] c05 N72-25122
Reaction tester
[NASA-CASE-MSC-13604-1] c05 N73-13114
Air conditioned suit
[NASA-CASE-LAR-10076-1] c05 N73-20137
Compton scatter attenuation gamma ray spectrometer
[NASA-CASE-MPS-21441-1] c14 N73-30392
Inverter ratio failure detector
[NASA-CASE-NPO-13160-1] c35 N74-18090
Electrophoretic sample insertion
[NASA-CASE-MPS-21395-1] c25 N74-26948
Apparatus for conducting flow electrophoresis in the substantial absence of gravity
[NASA-CASE-MPS-21394-1] c34 N74-27744
Multiparameter vision testing apparatus
[NASA-CASE-MSC-13601-2] c54 N75-27759
Automatic bioassay sampling
[NASA-CASE-MSC-14640-1] c54 N76-14804
Voltage feed through apparatus having reduced partial discharge
[NASA-CASE-GSC-12347-1] c33 N78-17297

GENERAL ELECTRIC CO., PLEASANTON, CALIF.
Method of making a cermet Patent
[NASA-CASE-LBW-10219-1] c18 N71-28729

GENERAL ELECTRIC CO., SCHENECTADY, N. Y.
Superconductive accelerometer Patent
[NASA-CASE-XMF-01099] c14 N71-15969
Remote manipulator system
[NASA-CASE-MPS-22022-1] c37 N76-15460
Automatic transponder
[NASA-CASE-GSC-12075-1] c32 N77-31350
Directionally solidified eutectic gamma plus beta nickel-base superalloys
[NASA-CASE-LBW-12906-1] c26 N77-32279

GENERAL ELECTRIC CO., UTICA, N. Y.
Method of determining bond quality of power transistors attached to substrates
[NASA-CASE-MPS-21931-1] c37 N75-26372

GENERAL MOTORS CORP., DETROIT, MICH.
Hermetic sealed vibration damper Patent
[NASA-CASE-MSC-10959] c15 N71-26243

GENERAL MOTORS CORP., MILWAUKEE, WIS.
Adjustable tension wire guide Patent
[NASA-CASE-XMS-02383] c15 N71-15918

GENERAL MOTORS CORP., SANTA BARBARA, CALIF.
Resilient wheel Patent
[NASA-CASE-MPS-13929] c15 N71-27091

GENERAL PRECISION, INC., LITTLE FALLS, N.J.
Reversible current control apparatus Patent
[NASA-CASE-XLA-09371] c10 N71-18724

GENERAL PRECISION, INC., SUNNYVALE, CALIF.
Broadband video process with very high input impedance
[NASA-CASE-NPO-10199] c09 N72-17156

GENERAL PRECISION SYSTEMS, INC., LITTLE FALLS, N.J.
Fluidic-thermochronic display device Patent
[NASA-CASE-ERC-10031] c12 N71-18603

GENERAL TECHNOLOGIES CORP., RESTON, VA.
Method of making reinforced composite structure
[NASA-CASE-LBW-12619-1] c24 N77-19171

GEOPHYSICS CORP. OF AMERICA, BEDFORD, MASS.
Inflation system for balloon type satellites Patent
[NASA-CASE-XGS-03351] c31 N71-16081

GEOPHYSICS CORP. OF AMERICA, BOSTON, MASS.
Ionospheric battery Patent
[NASA-CASE-XGS-01593] c03 N70-35408

GEORGE WASHINGTON UNIV., WASHINGTON, D. C.
Bacteria detection instrument and method
[NASA-CASE-GSC-11533-1] c14 N73-13435
Arterial pulse wave pressure transducer
[NASA-CASE-GSC-11531-1] c52 N74-27566

GIANNINI SCIENTIFIC CORP., SANTA ANA, CALIF.
Electric arc light source having undercut recessed anode
[NASA-CASE-ARC-10266-1] c33 N75-29318
Combination automatic-starting electrical plasma torch and gas shutoff valve
[NASA-CASE-XLE-10717] c37 N75-29426

GLOBE-UNION, INC., MILWAUKEE, WIS.
Method of coating solar cell with borosilicate glass and resultant product
[NASA-CASE-GSC-11514-1] c03 N72-24037

GOODYEAR AEROSPACE CORP., AKRON, OHIO.
Foldable solar concentrator Patent
[NASA-CASE-XLA-04622] c03 N70-41580
Method of making a filament-wound container Patent
[NASA-CASE-XLB-03803-2] c15 N71-17651
Filament wound container Patent
[NASA-CASE-XLB-03803] c15 N71-23816
Panelized high performance multilayer insulation Patent
[NASA-CASE-MPS-14023] c33 N71-25351
Thermally activated foaming compositions Patent
[NASA-CASE-LAR-10373-1] c18 N71-26155
Compression test assembly
[NASA-CASE-LAR-10440-1] c14 N73-32323
Deployable flexible tunnel
[NASA-CASE-MPS-22636-1] c37 N76-22540

GRACE (W. R.) AND CO., CLARKSVILLE, MD.
Metal containing polymers from cyclic tetrameric phenylphosphonitriamides Patent
[NASA-CASE-HQN-10364] c06 N71-27363

GRUNMAN AIRCRAFT ENGINEERING CORP., BETHPAGE, N. Y.
Sealed cabinetry Patent
[NASA-CASE-MSC-12168-1] c09 N71-18600
Out of tolerance warning alarm system for plurality of monitored circuits Patent
[NASA-CASE-XMS-10984-1] c10 N71-19417

GULF GENERAL ATOMIC, SAN DIEGO, CALIF.
Waveform simulator Patent
[NASA-CASE-NPO-10251] c10 N71-27365

GULTON INDUSTRIES, INC., ALBUQUERQUE, N.MEX.
Analog-to-digital converter
[NASA-CASE-MSC-13110-1] c08 N72-22163

H

HAMILTON STANDARD, HARTFORD, CONN.
Portable breathing system
[NASA-CASE-MSC-16182-1] c54 N77-21847

HAMILTON STANDARD, WINDSOR LOCKS, CONN.
Venting device for pressurized space suit helmet Patent
[NASA-CASE-XMS-09652-1] c05 N71-26333
Regenerable device for scrubbing breathable air of CO₂ and moisture without special heat exchanger equipment
[NASA-CASE-MSC-14771-1] c54 N77-32722

HAMILTON STANDARD DIV., UNITED AIRCRAFT CORP., WINDSOR LOCKS, CONN.
Condensate removal device for heat exchanger
[NASA-CASE-MSC-14143-1] c77 N75-20139

HAYES INTERNATIONAL CORP., BIRMINGHAM, ALA.
Space craft soft landing system Patent
[NASA-CASE-XMF-02108] c31 N70-36845
Device for preventing high voltage arcing in electron beam welding Patent
[NASA-CASE-XMF-08522] c15 N71-19486

HAYES INTERNATIONAL CORP., HUNTSVILLE, ALA.
Method and apparatus for cryogenic wire stripping Patent
[NASA-CASE-MPS-10340] c15 N71-17628
Self-balancing strain gage transducer Patent
[NASA-CASE-MPS-12827] c14 N71-17656
Automatic closed circuit television arc guidance control Patent
[NASA-CASE-MPS-13046] c07 N71-19433

HAZLETON LABS., FALLS CHURCH, VA.
Use of the enzyme hexokinase for the reduction of inherent light levels
[NASA-CASE-XGS-05533] c04 N69-27487
Light detection instrument Patent
[NASA-CASE-XGS-05534] c23 N71-16355
Lyophilized reaction mixtures Patent
[NASA-CASE-XGS-05532] c06 N71-17705
Firefly pump-metering system
[NASA-CASE-GSC-10218-1] c15 N72-21465

HERCULES, INC., WILMINGTON, DEL.
Method of repairing discontinuity in fiberglass structures

[NASA-CASE-LAR-10416-1] c24 N74-30001
HOFFMAN ELECTRONICS CORP., EL MONTE, CALIF.
 Method for producing a solar cell having an
 integral protective covering
 [NASA-CASE-XGS-04531] c03 N69-24267
HONEYWELL, INC., HOPKINS, MINN.
 Frequency control network for a current feedback
 oscillator Patent
 [NASA-CASE-GSC-10041-1] c10 N71-19418
HONEYWELL, INC., MINNEAPOLIS, MINN.
 Bus voltage compensation circuit for controlling
 direct current motor
 [NASA-CASE-XMS-04215-1] c09 N69-39987
 Apparatus for overcurrent protection of a
 push-pull amplifier Patent
 [NASA-CASE-HSC-12033-1] c09 N71-13531
 Static inverter Patent
 [NASA-CASE-XGS-05289] c09 N71-19470
 High impedance measuring apparatus Patent
 [NASA-CASE-XMS-08589-1] c09 N71-20569
 Clamping assembly for inertial components Patent
 [NASA-CASE-XMS-02184] c15 N71-20813
 Piezoelectric pump Patent
 [NASA-CASE-XNP-05429] c26 N71-21824
 Controllers Patent
 [NASA-CASE-XMS-07487] c15 N71-23255
 Convoluting device for forming convolutions and
 the like Patent
 [NASA-CASE-XNP-05297] c15 N71-23811
 Failure sensing and protection circuit for
 converter networks Patent
 [NASA-CASE-GSC-10114-1] c10 N71-27366
 Voice operated controller Patent
 [NASA-CASE-XLA-04063] c31 N71-33160
 Load current sensor for a series pulse width
 modulated power supply
 [NASA-CASE-GSC-10656-1] c09 N72-25249
 Radiant source tracker independent of
 nonconstant irradiance
 [NASA-CASE-NPO-11686] c14 N73-25462
 Optical instruments
 [NASA-CASE-HSC-14096-1] c74 N74-15095
 Method of forming shrink-fit compression seal
 [NASA-CASE-LAR-11563-1] c37 N77-23482
HOUSTON UNIV., TX.
 Analysis of volatile organic compounds
 [NASA-CASE-HSC-14428-1] c23 N77-17161
HOWARD UNIV., WASHINGTON, D. C.
 Locking mechanism for orthopedic braces
 [NASA-CASE-GSC-12082-1] c54 N76-22914
 A cervix-to-rectum measuring device in a
 radiation applicator for use in the treatment
 of cervical cancer
 [NASA-CASE-GSC-12081-2] c52 N77-26796
 Locking mechanism for orthopedic braces
 [NASA-CASE-GSC-12082-2] c52 N77-27694
HUGHES AIRCRAFT CO., CULVER CITY, CALIF.
 Varactor high level mixer
 [NASA-CASE-XGS-02171] c09 N69-24324
 Thermally operated valve Patent
 [NASA-CASE-XLE-00815] c15 N70-35407
 Thrust dynamometer Patent
 [NASA-CASE-XLE-00702] c14 N70-40203
 Solid state chemical source for ammonia beam
 maser Patent
 [NASA-CASE-XGS-01504] c16 N70-41578
 Canopus detector including automotive gain
 control of photomultiplier tube Patent
 [NASA-CASE-XNP-03914] c21 N71-10771
 Horn feed having overlapping apertures Patent
 [NASA-CASE-GSC-10452] c07 N71-12396
 Deflective rod switch with elastic support and
 sealing means Patent
 [NASA-CASE-XNP-09808] c09 N71-12518
 Guidance and maneuver analyzer Patent
 [NASA-CASE-XNP-09572] c14 N71-15621
 Method of making screen by casting Patent
 [NASA-CASE-XLE-00953] c15 N71-15966
 Fluid flow control valve Patent
 [NASA-CASE-XLE-00703] c15 N71-15967
 Low noise single aperture multinode monopulse
 antenna feed system Patent
 [NASA-CASE-XNP-01735] c07 N71-22750
 Multilayer porous ionizer Patent
 [NASA-CASE-XNP-04338] c17 N71-23046
 Construction and method of arranging a plurality
 of ion engines to form a cluster Patent
 [NASA-CASE-XNP-02923] c28 N71-23081

Method for fiberizing ceramic materials Patent
 [NASA-CASE-XNP-00597] c18 N71-23088
 Inorganic thermal control pigment Patent
 [NASA-CASE-XNP-02139] c18 N71-24184
 Triaxial antenna Patent
 [NASA-CASE-XGS-02290] c07 N71-28809
 Variable frequency oscillator with temperature
 compensation Patent
 [NASA-CASE-XNP-03916] c09 N71-28810
 High efficiency ionizer assembly Patent
 [NASA-CASE-XNP-01954] c28 N71-28850
 Apparatus for changing the orientation and
 velocity of a spinning body traversing a path
 Patent
 [NASA-CASE-HQN-00936] c31 N71-29050
 Fabrication of controlled-porosity metals Patent
 [NASA-CASE-XNP-04339] c17 N71-29137
 Ion thruster
 [NASA-CASE-LEW-10770-1] c28 N72-22770
 Refractory porcelain enamel passive control
 coating for high temperature alloys
 [NASA-CASE-HPS-22324-1] c27 N75-27160
HUGHES AIRCRAFT CO., LOS ANGELES, CALIF.
 Power control circuit
 [NASA-CASE-XNP-02713] c10 N69-39888
 Thermal switch Patent
 [NASA-CASE-XNP-00463] c33 N70-36847
 Double optic system for ion engine Patent
 [NASA-CASE-XNP-02839] c28 N70-41922
 Sample collecting impact bit Patent
 [NASA-CASE-XNP-01412] c15 N70-42034
 Bootstrap unloader Patent
 [NASA-CASE-XNP-09768] c09 N71-12516
 Difference circuit Patent
 [NASA-CASE-XNP-08274] c10 N71-13537
 Gas regulator Patent
 [NASA-CASE-NPO-10298] c12 N71-17661
 A dc-coupled noninverting one-shot Patent
 [NASA-CASE-XNP-09450] c10 N71-18723
 Phase demodulation system with two phase locked
 loops Patent
 [NASA-CASE-XNP-00777] c10 N71-19469
 High voltage transistor circuit Patent
 [NASA-CASE-XNP-06937] c09 N71-19516
 Drift compensation circuit for analog to digital
 converter Patent
 [NASA-CASE-XNP-04780] c08 N71-19687
 System for monitoring the presence of neutrals
 in a stream of ions Patent
 [NASA-CASE-XNP-02592] c24 N71-20518
 Broadband frequency discriminator Patent
 [NASA-CASE-NPO-10096] c07 N71-24583
 Flexible, repairable, portable material for
 electrical connectors Patent
 [NASA-CASE-XGS-05180] c18 N71-25881
 Phase multiplying electronic scanning system
 Patent
 [NASA-CASE-NPO-10302] c10 N71-26142
 Narrow bandwidth video Patent
 [NASA-CASE-XMS-06740-1] c07 N71-26579
 Solar panel fabrication Patent
 [NASA-CASE-XNP-03413] c03 N71-26726
 Method for removing oxygen impurities from
 cesium Patent
 [NASA-CASE-XNP-04262-2] c17 N71-26773
 Virtual wall slot circularly polarized planar
 array antenna
 [NASA-CASE-NPO-10301] c07 N72-11148
 Conical reflector antenna
 [NASA-CASE-NPO-10303] c07 N72-22127
 Injector for use in high voltage isolators for
 liquid feed lines
 [NASA-CASE-NPO-11377] c15 N73-27406
 High efficiency multifrequency feed
 [NASA-CASE-GSC-11909] c32 N74-20863
 Thiophenyl ether disiloxanes and trisiloxanes
 useful as lubricant fluids
 [NASA-CASE-HPS-22411-1] c37 N74-21058
 Method and apparatus for optically monitoring
 the angular position of a rotating mirror
 [NASA-CASE-GSC-11353-1] c74 N74-21304
 Apparatus and method for determining the
 position of a radiant energy source
 [NASA-CASE-GSC-12147-1] c35 N77-20410
 Wide power range microwave feedback controller
 [NASA-CASE-GSC-12146-1] c33 N77-21322
 A system for synchronizing synthesizers of
 communication systems
 [NASA-CASE-GSC-12148-1] c32 N77-22314

Gregorian all-reflective optical system
 [NASA-CASE-GSC-12058-1] c74 N77-26942
 Opto-mechanical subsystem with temperature
 compensation through isothermal design
 [NASA-CASE-GSC-12059-1] c35 N77-27366
HUGHES RESEARCH LABS., MALIBU, CALIF.
 Thrust dynamometer Patent
 [NASA-CASE-XLE-05260] c14 N71-20429

IIT RESEARCH INST., CHICAGO, ILL.

Spectral method for monitoring atmospheric
 contamination of inert-gas welding shields
 Patent
 [NASA-CASE-XMF-02039] c15 N71-15871
 Lightweight refractory insulation and method of
 preparing the same Patent
 [NASA-CASE-XMF-05279] c18 N71-16124
 Stabilized zinc oxide coating compositions Patent
 [NASA-CASE-XMF-07770-2] c18 N71-26772
 Synthesis of zinc titanate pigment and coatings
 containing the same
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- Radiant source tracker independent of nonconstant irradiance
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- Two carrier communication system with single transmitter
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- High pulse rate high resolution optical radar system
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- Counting digital filters
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- Low phase noise digital frequency divider
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- Vehicle for use in planetary exploration
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- Temperature control system with a pulse width modulated bridge
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- Disconnect unit
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- Filter for third order phase locked loops
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- Receiver with an improved phase lock loop in a multichannel telemetry system with suppressed carrier
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- Pseudonoise (PN) synchronization of data system with derivation of clock frequency from received signal for clocking receiver PN generator
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- Ferrofluidic solenoid
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- Quadrupole mass filter with means to generate a noise spectrum exclusive of the resonant frequency of the desired ions to deflect stable ions
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- Controlled oscillator system with a time dependent output frequency
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Passive intrusion detection system [NASA-CASE-NPO-13804-1]	c35 N77-19390	An improved vehicular impact absorption system [NASA-CASE-NPO-14014-1]	c37 N77-31501
Charge transfer reaction laser with preionization means [NASA-CASE-NPO-13945-1]	c36 N77-19418	Apparatus for photon excited catalysis [NASA-CASE-NPO-13566-1]	c25 N77-32255
A non-tracking solar energy collector system [NASA-CASE-NPO-13813-1]	c44 N77-19579	Strong thin membrane structure [NASA-CASE-NPO-14021-1]	c27 N77-32313
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Cryogenic liquid sensor [NASA-CASE-NPO-10619-1]	c35 N77-21393	Photoelectron spectrometer with means for stabilizing sample surface potential [NASA-CASE-NPO-13772-1]	c35 N78-10429
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Internal combustion engine with electrostatic discharging fuels			

Motion restraining device
[NASA-CASE-NPO-13619-1] c37 N78-16369

Nuclear alkylated pyridine aldehyde polymers and
conductive compositions thereof
[NASA-CASE-NPO-10557] c27 N78-17214

Method of adhering bone to a rigid substrate
using a graphite fiber reinforced bone cement
[NASA-CASE-NPO-13764-1] c27 N78-17215

High performance ammonium nitrate propellant
[NASA-CASE-NPO-14260] c28 N78-17230

Purging means and method for Xenon arc lamps
[NASA-CASE-NPO-11978] c31 N78-17238

Pressure transducer
[NASA-CASE-NPO-11150] c35 N78-17359

A speed control device for a heavy duty shaft
[NASA-CASE-NPO-14170] c37 N78-17391

Cross correlation anomaly detection system
[NASA-CASE-NPO-13283] c38 N78-17395

Automatic visual inspection system for
microelectronics
[NASA-CASE-NPO-13282] c38 N78-17396

Low cost solar energy collection system
[NASA-CASE-NPO-13579-1] c44 N78-17460

System for near real-time crustal deformation
monitoring
[NASA-CASE-NPO-14124-1] c46 N78-17529

Differential optoacoustic absorption detector
[NASA-CASE-NPO-13759-1] c74 N78-17867

Clutter free synthetic aperture radar correlator
[NASA-CASE-NPO-14035-1] c32 N78-18266

Interferometer mirror tilt correcting system
[NASA-CASE-NPO-13687-1] c35 N78-18391

Over-under double-pass interferometer
[NASA-CASE-NPO-13999-1] c35 N78-18395

A system and method for obtaining wide screen
schlieren photographs
[NASA-CASE-NPO-14174-1] c35 N78-18396

Independent gain and bandwidth control of a
traveling wave maser
[NASA-CASE-NPO-13801-1] c36 N78-18410

High temperature resistant cermet and ceramic
compositions
[NASA-CASE-NPO-13690-1] c27 N78-19302

Method and apparatus for measuring minority
carrier lifetimes and bulk diffusion length in
P-N junction solar cells
[NASA-CASE-NPO-14100-1] c44 N78-19608

Microwave power converter
[NASA-CASE-NPO-14068-1] c44 N78-19609

Resolution enhanced sound detecting apparatus
[NASA-CASE-NPO-14134-1] c71 N78-19898

K

KELSEY-HAYES CO., ROMULUS, MICH.
Variable thrust ion engine utilizing thermally
decomposable solid fuel Patent
[NASA-CASE-XNP-00923] c28 N70-36802

KELTEC INDUSTRIES, INC., ALEXANDRIA, VA.
Unfurlable structure including coiled strips
thrust launched upon tension release Patent
[NASA-CASE-HQN-00937] c07 N71-28979

KINELOGIC CORP., PASADENA, CALIF.
Excitation and detection circuitry for a flux
responsive magnetic head
[NASA-CASE-XNP-04183] c09 N69-24329

Tape guidance system and apparatus for the
provision thereof Patent
[NASA-CASE-XNP-09453] c08 N71-19420

Incremental tape recorder and data rate
converter Patent
[NASA-CASE-XNP-02778] c08 N71-22710

KOLLSMAN INSTRUMENT CORP., ELMHURST, N. Y.
Wide angle long eye relief eyepiece Patent
[NASA-CASE-XMS-06056-1] c23 N71-24857

KOLLSMAN INSTRUMENT CORP., SYOSSET, N. Y.
Digital modulator and demodulator Patent
[NASA-CASE-EBC-10041] c08 N71-29138

Ritchey-Chretien Telescope
[NASA-CASE-GSC-11487-1] c14 N73-30393

KONIGSBERG INSTRUMENTS, INC., PASADENA, CALIF.
Accelerometer telemetry system
[NASA-CASE-ABC-10849-1] c17 N76-29347

KORAD CORP., NEW YORK.
Laser apparatus for removing material from
rotating objects Patent
[NASA-CASE-NPS-11279] c16 N71-20400

L

LIFESYSTEMS, INC., BEACHWOOD, OHIO.
Iodine generator for reclaimed water purification
[NASA-CASE-HSC-14632-1] c54 N78-14784

LING-TENCO-VOUGHT, INC., DALLAS, TEX.
Latch/ejector unit Patent
[NASA-CASE-XLA-03538] c15 N71-24897

LITTLE (ARTHUR D.), INC., CAMBRIDGE, MASS.
Apparatus for measuring thermal conductivity
Patent
[NASA-CASE-XGS-01052] c14 N71-15992

Non-flammable elastomeric fiber from a
fluorinated elastomer and containing an
halogenated flame retardant
[NASA-CASE-HSC-14331-1] c27 N76-24405

Flame retardant elastomeric compositions
[NASA-CASE-HSC-14331-3] c27 N76-24409

Flame retardant spandex type polyurethanes
[NASA-CASE-HSC-14331-2] c27 N78-17213

LITTON INDUSTRIES, BEVERLY HILLS, CALIF.
Life support system
[NASA-CASE-HSC-12411-1] c05 N72-20096

LITTON INDUSTRIES, COLLEGE PARK, MD.
Shrink-fit gas valve Patent
[NASA-CASE-XGS-00587] c15 N70-35087

LITTON INDUSTRIES, SAN CARLOS, CALIF.
Very high intensity light source using a cathode
ray tube
[NASA-CASE-XNP-01296] c33 N75-27250

LITTON SYSTEMS, INC., MINNEAPOLIS, MINN.
Apparatus for sampling particulates in gases
[NASA-CASE-HQN-10037-1] c14 N73-27376

LOCKHEED AIRCRAFT CORP., BURBANK, CALIF.
Aerodynamic protection for space flight vehicles
Patent
[NASA-CASE-XNP-02507] c31 N71-17679

LOCKHEED-CALIFORNIA CO., BURBANK.
Absorptive splitter for closely spaced
supersonic engine air inlets Patent
[NASA-CASE-XLA-02865] c28 N71-15563

Multistage aerospace craft
[NASA-CASE-XNP-02263] c05 N74-10907

LOCKHEED ELECTRONICS CO., HOUSTON, TEX.
Television signal scan rate conversion system
Patent
[NASA-CASE-XNS-07168] c07 N71-11300

Burst synchronization detection system Patent
[NASA-CASE-XNS-05605-1] c10 N71-19468

Automatic signal range selector for metering
devices Patent
[NASA-CASE-XNS-06497] c14 N71-26244

Monostable multivibrator with complementary NOR
gates Patent
[NASA-CASE-HSC-13492-1] c10 N71-28860

Ultrastable calibrated light source
[NASA-CASE-HSC-12293-1] c14 N72-27411

Data storage, image tube type
[NASA-CASE-HSC-14053-1] c60 N74-12888

Differential phase shift keyed communication
system
[NASA-CASE-HSC-14065-1] c32 N74-26654

Differential phase shift keyed signal resolver
[NASA-CASE-HSC-14066-1] c33 N74-27705

Method and apparatus for decoding compatible
convolutional codes
[NASA-CASE-HSC-14070-1] c32 N74-32598

Pulse stretcher for narrow pulses
[NASA-CASE-HSC-14130-1] c33 N74-32711

Peak holding circuit for extremely narrow pulses
[NASA-CASE-HSC-14129-1] c33 N75-18479

Random pulse generator
[NASA-CASE-HSC-14131-1] c33 N75-19515

Digital transmitter for data bus communications
system
[NASA-CASE-HSC-14558-1] c32 N75-21486

Low distortion receiver for bi-level baseband
PCM waveforms
[NASA-CASE-HSC-14557-1] c32 N76-16249

Dual frequency circularly polarized microwave
integrated antenna
[NASA-CASE-HSC-16100-1] c32 N77-15233

System for producing chroma signals
[NASA-CASE-HSC-14683-1] c74 N77-18893

Phase array antenna control
[NASA-CASE-HSC-14939-1] c33 N77-19320

Apparatus and method for stabilized phase
detection for binary signal tracking loops

[NASA-CASE-MSC-16461-1] c32 N78-15331
 Low profile circularly polarized antenna
 [NASA-CASE-MSC-16683-1] c32 N78-15332
LOCKHEED MISSILES AND SPACE CO., SUNNYVALE, CALIF.
 Device for handling heavy loads
 [NASA-CASE-INP-04969] c11 N69-27466
 Transient heat transfer gauge Patent
 [NASA-CASE-INP-09802] c33 N71-15641
 Dual solid cryogenics for spacecraft refrigeration
 Patent
 [NASA-CASE-GSC-10188-1] c23 N71-24725
 Apparatus for detecting the amount of material
 in a resonant cavity container Patent
 [NASA-CASE-INP-02500] c18 N71-27397
 Emergency earth orbital escape device
 [NASA-CASE-MSC-13281] c31 N72-18859
 Solar energy powered heliostats
 [NASA-CASE-GSC-10945-1] c21 N72-31637
 Coaxial inverted geometry transistor having
 buried emitter
 [NASA-CASE-ABC-10330-1] c09 N73-32112
 Whole body measurement systems
 [NASA-CASE-MSC-13972-1] c52 N74-10975
 Four phase logic systems
 [NASA-CASE-MSC-14240-1] c33 N75-14957
 Strain arrestor plate for fused silica tile
 [NASA-CASE-MSC-14182-1] c27 N76-14264
 Medical subject monitoring systems
 [NASA-CASE-MSC-14180-1] c52 N76-14757
 Two-component ceramic coating for silica
 insulation
 [NASA-CASE-MSC-14270-1] c27 N76-22377
 Optical alignment device
 [NASA-CASE-ABC-10932-1] c74 N76-22993
 Three-component ceramic coating for silica
 insulation
 [NASA-CASE-MSC-14270-2] c27 N76-23426
 Partial polarizer filter
 [NASA-CASE-GSC-12225-1] c74 N77-30935
 Process of forming catalytic surfaces for wet
 oxidation reactions
 [NASA-CASE-MSC-14831-1] c25 N78-10225
LOCKHEED PROPULSION CO., REDLANDS, CALIF.
 Propellant grain for rocket motors Patent
 [NASA-CASE-IGS-03556] c27 N70-35534
LTV AEROSPACE CORP., DALLAS, TEX.
 Method of fluxless brazing and diffusion bonding
 of aluminum containing components
 [NASA-CASE-MSC-14435-1] c37 N76-18455

M

MACON-RUST CO., LEXINGTON, KY.
 Stretcher Patent
 [NASA-CASE-INP-06589] c05 N71-23159
MARLIN-ROCKWELL CORP., JAMESTOWN, N. Y.
 Drilled ball bearing with a one piece
 anti-tipping cage assembly
 [NASA-CASE-LEW-11925-1] c37 N75-31446
MARQUARDT CORP., VAN NUYS, CALIF.
 Fuel injection pump for internal combustion
 engines Patent
 [NASA-CASE-MSC-12139-1] c28 N71-14058
 Multislit film cooled pyrolytic graphite rocket
 nozzle Patent
 [NASA-CASE-INP-04389] c28 N71-20942
 Tube sealing device Patent
 [NASA-CASE-NFO-10431] c15 N71-29132
MARTIN MARIETTA AEROSPACE, DENVER, COLO.
 Method and apparatus for tensile testing of
 metal foil
 [NASA-CASE-LAR-10208-1] c35 N76-18400
MARTIN MARIETTA CORP., BALTIMORE, MD.
 Landing gear Patent
 [NASA-CASE-INP-01174] c02 N70-41589
 Emergency escape system Patent
 [NASA-CASE-XKS-02342] c05 N71-11199
 Device to prevent clogging in a hopper
 [NASA-CASE-LAR-10961-1] c15 N73-12496
MARTIN MARIETTA CORP., DENVER, COLO.
 Flexible/rigidifiable cable assembly
 [NASA-CASE-MSC-13512-1] c15 N72-22485
 Derivation of a tangent function using an
 integrated circuit four-quadrant multiplier
 [NASA-CASE-MSC-13907-1] c10 N73-26230
 Low distortion automatic phase control circuit
 [NASA-CASE-MFS-21671-1] c33 N74-22885
 Variable ratio mixed-mode bilateral master-slave
 control system for shuttle remote manipulator

system
 [NASA-CASE-MSC-14245-1] c18 N75-27041
 Varying density composite structure
 [NASA-CASE-LAR-11181-1] c39 N75-31479
 Filter regeneration systems
 [NASA-CASE-MSC-14273-1] c34 N75-33342
 Turnstile and flared cone UHF antenna
 [NASA-CASE-LAR-10970-1] c33 N76-14372
 Method and apparatus for fluffing, separating,
 and cleaning fibers
 [NASA-CASE-LAR-11224-1] c37 N76-18456
 Extreme temperature thermal control coating
 [NASA-CASE-LAR-11756-1] c24 N76-26284
 Positive isolation disconnect
 [NASA-CASE-MSC-16043-1] c37 N77-15397
 Hearing aid malfunction detection system
 [NASA-CASE-MSC-14916-1] c33 N78-10375
MARYLAND UNIV., COLLEGE PARK.
 Method and apparatus for optical modulating a
 light signal Patent
 [NASA-CASE-GSC-10216-1] c23 N71-26722
MASSACHUSETTS INST. OF TECH., CAMBRIDGE.
 Pretreatment method for anti-wettable materials
 [NASA-CASE-XMS-03537] c15 N69-21471
 Hydraulic drive mechanism Patent
 [NASA-CASE-XMS-03252] c15 N71-10658
 Electronic amplifier with power supply switching
 Patent
 [NASA-CASE-XMS-00945] c09 N71-10798
 Method and apparatus for stabilizing a gaseous
 optical maser Patent
 [NASA-CASE-IGS-03644] c16 N71-18614
 Power supply Patent
 [NASA-CASE-XMS-02159] c10 N71-22961
 Optical frequency waveguide Patent
 [NASA-CASE-BQN-10541-1] c07 N71-26291
 Laser machining apparatus Patent
 [NASA-CASE-BQN-10541-2] c15 N71-27135
 Optical frequency waveguide and transmission
 system Patent
 [NASA-CASE-BQN-10541-4] c16 N71-27183
 Compact spectroradiometer
 [NASA-CASE-BQN-10683] c14 N71-34389
 Optical frequency waveguide and transmission
 system
 [NASA-CASE-BQN-10541-3] c23 N72-23695
 Display research collision warning system
 [NASA-CASE-BQN-10703] c21 N73-13643
 Transparent switchboard
 [NASA-CASE-MSC-13746-1] c10 N73-32143
 Vapor deposition apparatus
 [NASA-CASE-BQN-10462] c25 N75-29192
 Fault tolerant clock apparatus utilizing a
 controlled minority of clock elements
 [NASA-CASE-MSC-12531-1] c35 N75-30504
MCDONNELL AIRCRAFT CO., ST. LOUIS, MO.
 Method for making a heat insulating and ablative
 structure
 [NASA-CASE-XMS-01108] c15 N69-24322
 Heat flux sensor assembly
 [NASA-CASE-XMS-05909-1] c14 N69-27459
 Apparatus for purging systems handling toxic,
 corrosive, noxious and other fluids Patent
 [NASA-CASE-XMS-01905] c12 N71-21089
 Power supply circuit Patent
 [NASA-CASE-XMS-00913] c10 N71-23543
 Multiple circuit protector device
 [NASA-CASE-XMS-02744] c33 N75-27249
 Apparatus for welding sheet material
 [NASA-CASE-XMS-01330] c37 N75-27376
**MCDONNELL-DOUGLAS ASTRONAUTICS CO., HUNTINGTON
 BEACH, CALIF.**
 Heat transfer device
 [NASA-CASE-MFS-22938-1] c34 N76-18374
**MCDONNELL-DOUGLAS ASTRONAUTICS CO., SANTA MONICA,
 CALIF.**
 New polymers of perfluorobutadiene and method of
 manufacture Patent application
 [NASA-CASE-NPO-10863] c06 N70-11251
 Method of polymerizing perfluorobutadiene Patent
 application
 [NASA-CASE-NPO-10447] c06 N70-11252
MCDONNELL-DOUGLAS CORP., HUNTINGTON BEACH, CALIF.
 Variable direction force coupler
 [NASA-CASE-MFS-20317] c15 N73-13463
 Potable water dispenser
 [NASA-CASE-MFS-21115-1] c54 N74-12779
 Metering gun for dispensing precisely measured
 charges of fluid

[NASA-CASE-MPS-21163-1] c54 N74-17853
 Airlock
 [NASA-CASE-MPS-20922-1] c18 N74-22136
 Device for monitoring a change in mass in
 varying gravimetric environments
 [NASA-CASE-MPS-21556-1] c35 N74-26945
 Thrust-isolating mounting
 [NASA-CASE-MPS-21680-1] c18 N74-27397
 Device for measuring tensile forces
 [NASA-CASE-MPS-21728-1] c35 N74-27865
 Plane detector operable in presence of proton
 radiation
 [NASA-CASE-MPS-21577-1] c19 N74-29410
 Phase-locked servo system
 [NASA-CASE-MPS-22073-1] c33 N75-13139
 Vacuum leak detector
 [NASA-CASE-LAR-11237-1] c35 N75-19612
 Meter for use in detecting tension in straps
 having predetermined elastic characteristics
 [NASA-CASE-MPS-22189-1] c35 N75-19615
 Latching device
 [NASA-CASE-MPS-21606-1] c37 N75-19685
 Device for use in loading tension members
 [NASA-CASE-MPS-21488-1] c14 N75-24794
 MCDONNELL-DOUGLAS CORP., NEWPORT BEACH, CALIF.
 Method of making membranes
 [NASA-CASE-MPS-04264] c03 N69-21337
 MCDONNELL-DOUGLAS CORP., SANTA MONICA, CALIF.
 Rocket nozzle test method Patent
 [NASA-CASE-NPO-10311] c31 N71-15643
 Reaction of fluorine with polyperfluoropolyenes
 [NASA-CASE-NPO-10862] c06 N72-22107
 Polymers of perfluorobutadiene and method of
 manufacture
 [NASA-CASE-NPO-10863-2] c06 N72-25152
 Electrolytic cell structure
 [NASA-CASE-LAR-11042-1] c33 N75-27252
 Prevention of hydrogen embrittlement of high
 strength steel by hydrazine compositions
 [NASA-CASE-NPO-12122-1] c24 N76-14203
 Utilization of oxygen difluoride for syntheses
 of fluoropolymers
 [NASA-CASE-NPO-12061-1] c27 N76-16228
 MCDONNELL-DOUGLAS CORP., ST. LOUIS, MO.
 Thermally conductive polymers
 [NASA-CASE-GSC-11304-1] c06 N72-21105
 MEDICAL SCIENCES RESEARCH FOUNDATION, SAN
 FRANCISCO, CALIF.
 Reduction of blood serum cholesterol
 [NASA-CASE-NPO-12119-1] c52 N75-15270
 HELLON INST., PITTSBURGH, PA.
 Instrument for measuring torsional creep and
 recovery Patent
 [NASA-CASE-XLE-01481] c14 N71-10781
 HELPAR, INC., FALLS CHURCH, VA.
 Television simulation for aircraft and space
 flight Patent
 [NASA-CASE-MPS-03107] c09 N71-19449
 Compact solar still Patent
 [NASA-CASE-MPS-04533] c15 N71-23086
 HETCON, INC., SALINA, KANS.
 Tuning arrangement for an electron discharge
 device or the like Patent
 [NASA-CASE-MPS-09771] c09 N71-24841
 HETHODIST HOSPITAL, HOUSTON, TEX.
 Snap-in compressible biomedical electrode
 [NASA-CASE-MSC-14623-1] c52 N77-28717
 MICROWAVE ELECTRONICS CORP., PALO ALTO, CALIF.
 Folded traveling wave maser structure Patent
 [NASA-CASE-MPS-05219] c16 N71-15550
 Superconducting magnet Patent
 [NASA-CASE-MPS-06503] c23 N71-29049
 MICROWAVE RESEARCH CORP., NORTH ANDOVER, MASS.
 Highly efficient antenna system using a
 corrugated horn and scanning hyperbolic
 reflector
 [NASA-CASE-MPO-13568-1] c32 N76-21365
 MIDWEST RESEARCH INST., KANSAS CITY, MO.
 Preparation of ordered poly /arylenesiloxane/
 polymers
 [NASA-CASE-MPS-10753] c06 N71-11237
 Inorganic solid film lubricants Patent
 [NASA-CASE-MPS-03988] c15 N71-21403
 Fluorinated esters of polycarboxylic acids
 [NASA-CASE-MPS-21040-1] c06 N73-30098
 MILLIKEN (D. B.) CO., MERCEDIA, CALIF.
 Film feed camera having a detent means Patent
 [NASA-CASE-LAR-10686] c14 N71-28935

MINNEAPOLIS-HONEYWELL REGULATOR CO., MINN.
 Microelectronic module package Patent
 [NASA-CASE-MPS-02182] c10 N71-28783
 MODERN MACHINE AND TOOL CO., NEWPORT NEWS, VA.
 Means for accommodating large overstrain in lead
 wires
 [NASA-CASE-LAR-10168-1] c33 N74-22865
 MONSANTO RESEARCH CORP., DAYTON, OHIO.
 Perfluoro alkylene dioxy-bis-(4-phthalic
 anhydrides and
 oxy-bis-(perfluoroalkyleneoxyphthalic
 anhydrides
 [NASA-CASE-MPS-22356-1] c23 N75-30256
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Jet aircraft configuration Patent			
[NASA-CASE-XLA-00087]	c02	N70-33332	
Aerial capsule emergency separation device Patent			
[NASA-CASE-XLA-00115]	c03	N70-33343	
Nozzle Patent			
[NASA-CASE-XLA-00154]	c28	N70-33374	
Air frame drag balance Patent			
[NASA-CASE-XLA-00113]	c14	N70-33386	
Flexible foam erectable space structures Patent			
[NASA-CASE-XLA-00686]	c31	N70-34135	
Nose gear steering system for vehicle with main skids Patent			
[NASA-CASE-XLA-01804]	c02	N70-34160	
Surface roughness detector Patent			
[NASA-CASE-XLA-00203]	c14	N70-34161	
Variable-span aircraft Patent			
[NASA-CASE-XLA-00166]	c02	N70-34178	
Dynamic precession damper for spin stabilized vehicles Patent			
[NASA-CASE-XLA-01989]	c21	N70-34295	
Erectable modular space station Patent			
[NASA-CASE-XLA-00678]	c31	N70-34296	
Electric-arc heater Patent			
[NASA-CASE-XLA-00330]	c33	N70-34540	
Ac power amplifier Patent Application			
[NASA-CASE-LAR-10218-1]	c09	N70-34559	
Method and apparatus for producing a plasma Patent			
[NASA-CASE-XLA-00147]	c25	N70-34661	
Gas actuated bolt disconnect Patent			
[NASA-CASE-XLA-00326]	c03	N70-34667	
Logarithmic converter Patent			
[NASA-CASE-XLA-00471]	c08	N70-34778	
Handrel for shaping solid propellant rocket fuel into a motor casing Patent			
[NASA-CASE-XLA-00304]	c27	N70-34783	
Impact simulator Patent			
[NASA-CASE-XLA-00493]	c11	N70-34786	
Accelerometer with FM output Patent			
[NASA-CASE-XLA-00492]	c14	N70-34799	
Frangible tube energy dissipation Patent			
[NASA-CASE-XLA-00754]	c15	N70-34850	
Landing arrangement for aerial vehicle Patent			
[NASA-CASE-XLA-00806]	c02	N70-34858	
Method and apparatus for shock protection Patent			
[NASA-CASE-XLA-00482]	c15	N70-36409	
Inflatable honeycomb Patent			
[NASA-CASE-XLA-00204]	c32	N70-36536	
Thermal control of space vehicles Patent			
[NASA-CASE-XLA-01291]	c33	N70-36617	
Foam generator Patent			
[NASA-CASE-XLA-00838]	c03	N70-36778	
Parachute glider Patent			
[NASA-CASE-XLA-00898]	c02	N70-36804	
Production of high purity silicon carbide Patent			
[NASA-CASE-XLA-00158]	c26	N70-36805	
Airplane take-off performance indicator Patent			
[NASA-CASE-XLA-00100]	c14	N70-36807	
Aerodynamic measuring device Patent			
[NASA-CASE-XLA-00481]	c14	N70-36824	
Aircraft wheel spray drag alleviator Patent			
[NASA-CASE-XLA-01583]	c02	N70-36825	
Attitude orientation of spin-stabilized space vehicles Patent			
[NASA-CASE-XLA-00281]	c21	N70-36943	
Continuously operating induction plasma accelerator Patent			
[NASA-CASE-XLA-01354]	c25	N70-36946	
Check valve assembly for a probe Patent			
[NASA-CASE-XLA-00128]	c15	N70-37925	
Space capsule Patent			
[NASA-CASE-XLA-00149]	c31	N70-37938	
Sandwich panel construction Patent			
[NASA-CASE-XLA-00349]	c33	N70-37979	
Reflector space satellite Patent			
[NASA-CASE-XLA-00138]	c31	N70-37981	
Variable-geometry winged reentry vehicle Patent			
[NASA-CASE-XLA-00241]	c31	N70-37986	
Vehicle parachute and equipment jettison system Patent			
[NASA-CASE-XLA-00195]	c02	N70-38009	
Landing arrangement for aerospace vehicle Patent			
[NASA-CASE-XLA-00805]	c31	N70-38010	
Antenna system using parasitic elements and two driven elements at 90 deg angle fed 180 deg out of phase Patent			
[NASA-CASE-XLA-00414]	c07	N70-38200	
Despin weight release Patent			
[NASA-CASE-XLA-00679]	c15	N70-38601	
Manned space station Patent			
[NASA-CASE-XLA-00258]	c31	N70-38676	
Missile stage separation indicator and stage initiator Patent			
[NASA-CASE-XLA-00791]	c03	N70-39930	
Apparatus for producing high purity silicon carbide crystals Patent			
[NASA-CASE-XLA-02057]	c26	N70-40015	
Miniature vibration isolator Patent			
[NASA-CASE-XLA-01019]	c15	N70-40156	
Aircraft instrument Patent			
[NASA-CASE-XLA-00487]	c14	N70-40157	
Radiation direction detector including means for compensating for photocell aging Patent			
[NASA-CASE-XLA-00183]	c14	N70-40239	
Passive communication satellite Patent			
[NASA-CASE-XLA-00210]	c30	N70-40309	
Electrostatic plasma modulator for space vehicle re-entry communication Patent			
[NASA-CASE-XLA-01400]	c07	N70-41331	
Micrometeoroid velocity measuring device Patent			
[NASA-CASE-XLA-00495]	c14	N70-41332	
Method of obtaining permanent record of surface flow phenomena Patent			
[NASA-CASE-XLA-01353]	c14	N70-41366	
Means for communicating through a layer of ionized gases Patent			
[NASA-CASE-XLA-01127]	c07	N70-41372	
Quick release separation mechanism Patent			
[NASA-CASE-XLA-01441]	c15	N70-41679	
Flexible wing deployment device Patent			
[NASA-CASE-XLA-01220]	c02	N70-41863	
Self-sealing, unbonded, rocket motor nozzle closure Patent			
[NASA-CASE-XLA-02651]	c28	N70-41967	
Fatigue testing device Patent			
[NASA-CASE-XLA-02131]	c32	N70-42003	
Techniques for insulating cryogenic fuel containers Patent			
[NASA-CASE-XLA-01967]	c31	N70-42015	
Double hinged flap Patent			
[NASA-CASE-XLA-02190]	c02	N70-42016	
Spacecraft separation system for spinning vehicles and/or payloads Patent			
[NASA-CASE-XLA-02132]	c31	N71-10582	
Method for molding compounds Patent			
[NASA-CASE-XLA-01091]	c15	N71-10672	
Automatic force measuring system Patent			
[NASA-CASE-XLA-02605]	c14	N71-10773	
Gas analyzer for bi-gaseous mixtures Patent			
[NASA-CASE-XLA-01131]	c14	N71-10774	

Multiple input radio receiver Patent		Velocity package Patent	
[NASA-CASE-XLA-00901]	c07 N71-10775	[NASA-CASE-XLA-01339]	c31 N71-15692
Rotating space station simulator Patent		File card marker Patent	
[NASA-CASE-XLA-03127]	c11 N71-10776	[NASA-CASE-XLA-02705]	c08 N71-15908
Composite powerplant and shroud therefor Patent		Hypersonic test facility Patent	
[NASA-CASE-XLA-01043]	c28 N71-10780	[NASA-CASE-XLA-00378]	c11 N71-15925
All-directional fastener Patent		Test unit free-flight suspension system Patent	
[NASA-CASE-XLA-01807]	c15 N71-10799	[NASA-CASE-XLA-00939]	c11 N71-15926
Hot air balloon deceleration and recovery system Patent		Reduced gravity simulator Patent	
[NASA-CASE-XLA-06824-2]	c02 N71-11037	[NASA-CASE-XLA-01787]	c11 N71-16028
Control for flexible parawing Patent		Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent	
[NASA-CASE-XLA-06958]	c02 N71-11038	[NASA-CASE-XLA-00284]	c15 N71-16075
Variable sweep aircraft Patent		Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent	
[NASA-CASE-XLA-03659]	c02 N71-11041	[NASA-CASE-XLA-00302]	c15 N71-16077
Translating horizontal tail Patent		Separator Patent	
[NASA-CASE-XLA-08801-1]	c02 N71-11043	[NASA-CASE-XLA-00415]	c15 N71-16079
Space suit pressure stabilizer Patent		Omnidirectional multiple impact landing system Patent	
[NASA-CASE-XLA-05332]	c05 N71-11194	[NASA-CASE-XLA-09881]	c31 N71-16085
Equipotential space suit Patent		Flexible ring slosh damping baffle Patent	
[NASA-CASE-LAR-10007-1]	c05 N71-11195	[NASA-CASE-LAR-10317-1]	c32 N71-16103
Recovery of potable water from human wastes in below-G conditions Patent		Buoyant anti-slosh system Patent	
[NASA-CASE-XLA-03213]	c05 N71-11207	[NASA-CASE-XLA-04605]	c32 N71-16106
Process for interfacial polymerization of pyromellitic dianhydride and 1,2,4,5-tetraamino-benzene Patent		Detector panels-micrometeoroid impact Patent	
[NASA-CASE-XLA-03104]	c06 N71-11235	[NASA-CASE-XLA-05906]	c31 N71-16221
Imidazopyrrolone/wide copolymers Patent		Wind velocity probing device and method Patent	
[NASA-CASE-XLA-08802]	c06 N71-11238	[NASA-CASE-XLA-02081]	c20 N71-16281
Adaptive compression of communication signals Patent		Vibrating structure displacement measuring instrument Patent	
[NASA-CASE-XLA-03076]	c07 N71-11266	[NASA-CASE-XLA-03135]	c32 N71-16428
Reentry communication by material addition Patent		Viscous-pendulum-damper Patent	
[NASA-CASE-XLA-01552]	c07 N71-11284	[NASA-CASE-XLA-02079]	c12 N71-16894
Cooperative Doppler radar system Patent		Leak detector Patent	
[NASA-CASE-LAR-10403]	c21 N71-11766	[NASA-CASE-LAR-10323-1]	c12 N71-17573
Supersonic aircraft Patent		Logic AND gate for fluid circuits Patent	
[NASA-CASE-XLA-04451]	c02 N71-12243	[NASA-CASE-XLA-07391]	c12 N71-17579
Uniblical disconnect Patent		Contour surveying system Patent	
[NASA-CASE-XLA-00711]	c03 N71-12258	[NASA-CASE-XLA-08646]	c14 N71-17586
Remote controlled tubular disconnect Patent		Cable arrangement for rigid tethering Patent	
[NASA-CASE-XLA-01396]	c03 N71-12259	[NASA-CASE-XLA-02332]	c32 N71-17609
Backpack carrier Patent		Thermal pump-compressor for space use Patent	
[NASA-CASE-LAR-10056]	c05 N71-12351	[NASA-CASE-XLA-00377]	c33 N71-17610
Optical communications system Patent		Viscous pendulum damper Patent	
[NASA-CASE-XLA-01090]	c07 N71-12389	[NASA-CASE-LAR-10274-1]	c14 N71-17626
Analog to digital converter Patent		Self supporting space vehicle Patent	
[NASA-CASE-XLA-00670]	c08 N71-12501	[NASA-CASE-XLA-00117]	c31 N71-17680
Integrated time shared instrumentation display Patent		Technique for control of free-flight rocket vehicles Patent	
[NASA-CASE-XLA-01952]	c08 N71-12507	[NASA-CASE-XLA-00937]	c31 N71-17691
SCR blocking pulse gate amplifier Patent		Hydraulic grip Patent	
[NASA-CASE-XLA-07497]	c09 N71-12514	[NASA-CASE-XLA-05100]	c15 N71-17696
Minimum induced drag airfoil body Patent		Heat protection apparatus Patent	
[NASA-CASE-XLA-00755]	c01 N71-13410	[NASA-CASE-XLA-00892]	c33 N71-17897
Minimum induced drag airfoil body Patent		Thermopile vacuum gage tube simulator Patent	
[NASA-CASE-XLA-05828]	c01 N71-13411	[NASA-CASE-XLA-02758]	c14 N71-18481
Mechanical stability augmentation system Patent		Ionization vacuum gauge with all but the end of the ion collector shielded Patent	
[NASA-CASE-XLA-06339]	c02 N71-13422	[NASA-CASE-XLA-07424]	c14 N71-18482
Automatic balancing device Patent		Safe-arm initiator Patent	
[NASA-CASE-LAR-10774]	c10 N71-13545	[NASA-CASE-LAR-10372]	c09 N71-18599
Quick release connector Patent		Controlled glass bead peening Patent	
[NASA-CASE-XLA-01141]	c15 N71-13789	[NASA-CASE-XLA-07390]	c15 N71-18616
Spacecraft experiment pointing and attitude control system Patent		Exclusive-Or digital logic module Patent	
[NASA-CASE-XLA-05464]	c21 N71-14132	[NASA-CASE-XLA-07732]	c08 N71-18751
Pressurized cell micrometeoroid detector Patent		Slosh alleviator Patent	
[NASA-CASE-XLA-00936]	c14 N71-14996	[NASA-CASE-XLA-05749]	c15 N71-19569
Crossed-field MHD plasma generator/accelerator Patent		G conditioning suit Patent	
[NASA-CASE-XLA-03374]	c25 N71-15562	[NASA-CASE-XLA-02898]	c05 N71-20268
Adjustable attitude guide device Patent		Dosimeter for high levels of absorbed radiation Patent	
[NASA-CASE-XLA-07911]	c15 N71-15571	[NASA-CASE-XLA-03645]	c14 N71-20430
Control system for rocket vehicles Patent		Flow field simulation Patent	
[NASA-CASE-XLA-01163]	c21 N71-15582	[NASA-CASE-LAR-11138]	c12 N71-20436
Excessive temperature warning system Patent		Variable pulse width multiplier Patent	
[NASA-CASE-XLA-01926]	c14 N71-15620	[NASA-CASE-XLA-02850]	c09 N71-20447
Alleviation of divergence during rocket launch Patent		Means for measuring the electron density gradients of the plasma sheath formed around a space vehicle Patent	
[NASA-CASE-XLA-00256]	c31 N71-15663	[NASA-CASE-XLA-06232]	c25 N71-20563
Space capsule Patent		Null device for hand controller Patent	
[NASA-CASE-XLA-01332]	c31 N71-15664	[NASA-CASE-XLA-01808]	c15 N71-20740
Variable geometry manned orbital vehicle Patent		Event recorder Patent	
[NASA-CASE-XLA-03691]	c31 N71-15674	[NASA-CASE-XLA-01832]	c14 N71-21006
Payload/burned-out motor case separation system Patent		Inflatable support structure Patent	
[NASA-CASE-XLA-05369]	c31 N71-15687	[NASA-CASE-XLA-01731]	c32 N71-21045
		Fast opening diaphragm Patent	
		[NASA-CASE-XLA-03660]	c15 N71-21060

Ellipsograph for pantograph Patent
[NASA-CASE-XLA-03102] c14 N71-21079

Random function tracer Patent
[NASA-CASE-XLA-01401] c15 N71-21179

Method and apparatus for bonding a plastics sleeve onto a metallic body Patent
[NASA-CASE-XLA-01262] c15 N71-21404

Hypersonic test facility Patent
[NASA-CASE-XLA-05378] c11 N71-21475

Multilegged support system Patent
[NASA-CASE-XLA-01326] c11 N71-21481

Nozzle afterbody for jet engines Patent
[NASA-CASE-XLA-10450] c28 N71-21493

Canister closing device Patent
[NASA-CASE-XLA-01446] c15 N71-21528

Ablation sensor Patent
[NASA-CASE-XLA-01794] c33 N71-21586

Self-repeating plasma generator having communicating annular and linear arc discharge passages Patent
[NASA-CASE-XLA-03103] c25 N71-21693

Attitude control and damping system for spacecraft Patent
[NASA-CASE-XLA-02551] c21 N71-21708

Method of making inflatable honeycomb Patent
[NASA-CASE-XLA-03492] c15 N71-22713

Lunar penetrometer Patent
[NASA-CASE-XLA-00934] c14 N71-22765

Thermal control wall panel Patent
[NASA-CASE-XLA-01243] c33 N71-22792

Attitude sensor for space vehicles Patent
[NASA-CASE-XLA-00793] c21 N71-22880

Omnidirectional microwave spacecraft antenna Patent
[NASA-CASE-XLA-03114] c09 N71-22888

Thermal control panel Patent
[NASA-CASE-XLA-07728] c33 N71-22890

Spacecraft airlock Patent
[NASA-CASE-XLA-02050] c31 N71-22968

Station keeping of a gravity gradient stabilized satellite Patent
[NASA-CASE-XLA-03132] c31 N71-22969

Semi-linear ball bearing Patent
[NASA-CASE-XLA-02809] c15 N71-22982

Heat sensing instrument Patent
[NASA-CASE-XLA-01551] c14 N71-22989

Ablation sensor Patent
[NASA-CASE-XLA-01791] c14 N71-22991

Self-calibrating displacement transducer Patent
[NASA-CASE-XLA-00781] c09 N71-22999

Lateral displacement system for separated rocket stages Patent
[NASA-CASE-XLA-04804] c31 N71-23008

Thermal control coating Patent
[NASA-CASE-XLA-01995] c18 N71-23047

Method of making an inflatable panel Patent
[NASA-CASE-XLA-03497] c15 N71-23052

Variable duration pulse integrator Patent
[NASA-CASE-XLA-01219] c10 N71-23084

Impact energy absorber Patent
[NASA-CASE-XLA-01530] c14 N71-23092

Micrometeoroid penetration measuring device Patent
[NASA-CASE-XLA-00941] c14 N71-23240

Combined optical attitude and altitude indicating instrument Patent
[NASA-CASE-XLA-01907] c14 N71-23268

Solar sensor having coarse and fine sensing with matched preirradiated cells and method of selecting cells Patent
[NASA-CASE-XLA-01584] c14 N71-23269

Variable width pulse integrator Patent
[NASA-CASE-XLA-02356] c10 N71-23315

Leading edge curvature based on convective heating Patent
[NASA-CASE-XLA-01486] c01 N71-23497

Measurement of time differences between luminous events Patent
[NASA-CASE-XLA-01987] c23 N71-23976

Method for measuring the characteristics of a gas Patent
[NASA-CASE-XLA-03375] c16 N71-24074

Laser grating interferometer Patent
[NASA-CASE-XLA-04295] c16 N71-24170

Automatic fatigue test temperature programmer Patent
[NASA-CASE-XLA-02059] c33 N71-24276

Ring wing tension vehicle Patent
[NASA-CASE-XLA-04901] c31 N71-24315

Process for applying black coating to metals Patent
[NASA-CASE-XLA-06199] c15 N71-24875

Velocity limiting safety system Patent
[NASA-CASE-XLA-07473] c15 N71-24895

Strain coupled servo control system Patent
[NASA-CASE-XLA-08530] c32 N71-25360

Method of temperature compensating semiconductor strain gages Patent
[NASA-CASE-XLA-04555-1] c14 N71-25892

Method for improving the signal-to-noise ratio of the Wheatstone bridge type bolometer Patent
[NASA-CASE-XLA-02810] c14 N71-25901

Method of plating copper on aluminum Patent
[NASA-CASE-XLA-08966-1] c17 N71-25903

Laser calibrator Patent
[NASA-CASE-XLA-03410] c16 N71-25914

Thermal protection ablation spray system Patent
[NASA-CASE-XLA-04251] c18 N71-26100

Direct lift control system Patent
[NASA-CASE-XLA-10249-1] c02 N71-26110

Light shield and infrared reflector for fatigue testing Patent
[NASA-CASE-XLA-01782] c14 N71-26136

Dual resonant cavity absorption cell Patent
[NASA-CASE-XLA-10305] c14 N71-26137

Resilience testing device Patent
[NASA-CASE-XLA-08254] c14 N71-26161

Precipitation detector Patent
[NASA-CASE-XLA-02619] c10 N71-26334

Instrument for measuring the dynamic behavior of liquids Patent
[NASA-CASE-XLA-05541] c12 N71-26387

Arbitrarily shaped model survey system Patent
[NASA-CASE-XLA-10098] c32 N71-26681

Dielectric molding apparatus Patent
[NASA-CASE-XLA-10121-1] c15 N71-26721

Method of making a solid propellant rocket motor Patent
[NASA-CASE-XLA-04126] c28 N71-26779

Dynamic vibration absorber Patent
[NASA-CASE-XLA-10083-1] c15 N71-27006

Rate augmented digital to analog converter Patent
[NASA-CASE-XLA-07828] c08 N71-27057

High speed flight vehicle control Patent
[NASA-CASE-XLA-08967] c02 N71-27088

Suspended mass impact damper Patent
[NASA-CASE-XLA-10193-1] c15 N71-27146

Active vibration isolator for flexible bodies Patent
[NASA-CASE-XLA-10106-1] c15 N71-27169

Soldering device Patent
[NASA-CASE-XLA-08911] c15 N71-27214

Fringe counter for interferometers Patent
[NASA-CASE-XLA-10204] c14 N71-27215

Wideband VCO with high phase stability Patent
[NASA-CASE-XLA-03893] c10 N71-27271

Plural position switch status and operativeness checker Patent
[NASA-CASE-XLA-08799] c10 N71-27272

Angular displacement indicating gas bearing support system Patent
[NASA-CASE-XLA-09346] c15 N71-28740

Solid state thermal control polymer coating Patent
[NASA-CASE-XLA-01745] c33 N71-28903

Specialized halogen generator for purification of water Patent
[NASA-CASE-XLA-08913] c14 N71-28933

Optical communications system Patent
[NASA-CASE-XLA-01090] c16 N71-28963

Antenna design for surface wave suppression Patent
[NASA-CASE-XLA-10772] c07 N71-28980

Analog to digital converter tester Patent
[NASA-CASE-XLA-06713] c14 N71-28991

Method of making pressurized panel Patent
[NASA-CASE-XLA-08916] c15 N71-29018

Maksutov spectrograph Patent
[NASA-CASE-XLA-10402] c14 N71-29041

Two component bearing Patent
[NASA-CASE-XLA-00013] c15 N71-29136

Digital pulse width selection circuit Patent
[NASA-CASE-XLA-07788] c09 N71-29139

Magnetically controlled plasma accelerator Patent
[NASA-CASE-XLA-00327] c25 N71-29184

Boring bar drive mechanism Patent
[NASA-CASE-XLA-03661] c15 N71-33518

Wind tunnel model damper Patent
[NASA-CASE-XLA-09480] c11 N71-33612

Variable geometry rotor system [NASA-CASE-LAR-10557]	c02 N72-11018	Nondestructive spot test method for titanium and titanium alloys [NASA-CASE-LAR-10539-1]	c17 N73-12547
Flared tube strainer [NASA-CASE-XLA-05056]	c15 N72-11389	Active air cushion control system minimizing vertical cushion response [NASA-CASE-LAR-10531-1]	c02 N73-13023
Impact measuring technique [NASA-CASE-LAR-10913]	c14 N72-16282	Logical function generator [NASA-CASE-XLA-05099]	c09 N73-13209
Technique of duplicating fragile core [NASA-CASE-XLA-07829]	c15 N72-16329	Ferry system [NASA-CASE-LAR-10574-1]	c11 N73-13257
Tube fabricating process [NASA-CASE-LAR-10203-1]	c15 N72-16330	Flow velocity and directional instrument [NASA-CASE-LAR-10855-1]	c14 N73-13415
Air bearing [NASA-CASE-WLP-10002]	c15 N72-17451	Vortex breach high pressure gas generator [NASA-CASE-LAR-10549-1]	c31 N73-13898
Extensometer frame [NASA-CASE-XLA-10322]	c15 N72-17452	Structural panel [NASA-CASE-LAR-11052-1]	c32 N73-13929
Split range transducer [NASA-CASE-XLA-11189]	c10 N72-20222	Butt welder for fine gauge tungsten/rhenium thermocouple wire [NASA-CASE-LAR-10103-1]	c15 N73-14468
Stereo photomicrography system [NASA-CASE-LAR-10176-1]	c14 N72-20380	Method of detecting oxygen in a gas [NASA-CASE-LAR-10668-1]	c06 N73-16106
Radar calibration sphere [NASA-CASE-XLA-11154]	c07 N72-21117	Combustion detector [NASA-CASE-LAR-10739-1]	c14 N73-16484
Recorder using selective noise filter [NASA-CASE-ERC-10112]	c07 N72-21119	Laser communication system for controlling several functions at a location remote to the laser [NASA-CASE-LAR-10311-1]	c16 N73-16536
Stacked array of omnidirectional antennas [NASA-CASE-LAR-10545-1]	c09 N72-21244	Apparatus for photographing meteors [NASA-CASE-LAR-10226-1]	c14 N73-19419
Electro-mechanical sine/cosine generator [NASA-CASE-LAR-10503-1]	c09 N72-21248	Zero gravity liquid mixer [NASA-CASE-LAR-10195-1]	c15 N73-19458
Fast scan control for deflection type mass spectrometers [NASA-CASE-LAR-10766-1]	c14 N72-21432	Cascade plug nozzle [NASA-CASE-LAR-10951-1]	c28 N73-19819
Lathe tool bit and holder for machining fiberglass materials [NASA-CASE-XLA-10470]	c15 N72-21489	Rate data encoder [NASA-CASE-LAR-10128-1]	c08 N73-20217
Pressure operated electrical switch responsive to a pressure decrease after a pressure increase [NASA-CASE-LAR-10137-1]	c09 N72-22204	Function generator for synthesizing complex vibration mode patterns [NASA-CASE-LAR-10310-1]	c10 N73-20253
Variable geometry wind tunnels [NASA-CASE-XLA-07430]	c11 N72-22246	Infrared horizon locator [NASA-CASE-LAR-10726-1]	c14 N73-20475
Magnifying scratch gage force transducer [NASA-CASE-LAR-10496-1]	c14 N72-22437	Electrical resistance spot welding and brazing techniques for metal bonding [NASA-CASE-LAR-11072-1]	c15 N73-20535
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 NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.
 WESTERN OPERATIONS OFFICE, SANTA MONICA, CALIF.
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 NATIONAL BUREAU OF STANDARDS, BOULDER, COLO.
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 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,
 BOULDER, COLO.
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 NORTH AMERICAN AVIATION, INC., EL SEGUNDO, CALIF.
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 [NASA-CASE-XMS-09310] c15 N71-22706
 Etching of aluminum for bonding Patent
 [NASA-CASE-NXP-02303] c17 N71-23828
 Method and apparatus for varying thermal
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 [NASA-CASE-NXP-05524] c33 N71-24876
 Purge device for thrust engines Patent
 [NASA-CASE-XMS-04826] c28 N71-28849
 Method and construction for protecting heat
 sensitive bodies from thermal radiation and
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 [NASA-CASE-NXP-01310] c33 N71-28852
 Propellant tank pressurization system Patent
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 Spherical shield Patent
 [NASA-CASE-NXP-01855] c15 N71-28937
 Universal restrainer and joint Patent
 [NASA-CASE-NXP-02278] c15 N71-28951

Method and device for cooling Patent
[NASA-CASE-HQS-00938] c33 N71-29053
NORTH AMERICAN AVIATION, INC., LOS ANGELES, CALIF.
Method and system for respiration analysis Patent
[NASA-CASE-XPR-08403] c05 N71-11202
NORTH AMERICAN AVIATION, INC., TORRANCE, CALIF.
Method and apparatus for detection and location
of microleaks Patent
[NASA-CASE-IMP-02307] c14 N71-10779
NORTH AMERICAN ROCKWELL CORP., CANOGA PARK, CALIF.
Noncontaminating swabs
[NASA-CASE-MFS-18100] c15 N72-11390
Observation window for a gas confining chamber
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Droplet monitoring probe
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Circuit board package with wedge shaped covers
[NASA-CASE-MFS-21919-1] c10 N73-25243
Heat flow calorimeter
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NORTH AMERICAN ROCKWELL CORP., DOWNEY, CALIF.
Spacecraft Patent
[NASA-CASE-MSC-13047-1] c31 N71-25434
Latching mechanism Patent
[NASA-CASE-MSC-15474-1] c15 N71-26162
Dye penetrant for surfaces subsequently
contacted by liquid oxygen Patent
[NASA-CASE-IMP-02221] c18 N71-27170
Aircraft crash locator apparatus
[NASA-CASE-MFS-16609] c14 N72-21431
Frangible link
[NASA-CASE-MSC-11849-1] c15 N72-22488
Impact monitoring apparatus
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Bonding or repairing process
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Self-cycling fluid heater
[NASA-CASE-MSC-15567-1] c33 N73-16918
Phase protection system for ac power lines
[NASA-CASE-MSC-17832-1] c33 N74-14956
Apparatus for remote handling of materials
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Grain refinement control in TIG arc welding
[NASA-CASE-MSC-19095-1] c37 N75-19683
NORTH AMERICAN ROCKWELL CORP., EL SEGUNDO, CALIF.
Apparatus for testing wiring harness by
vibration generating means
[NASA-CASE-MSC-15158-1] c14 N72-17325
NORTH AMERICAN ROCKWELL CORP., LOS ANGELES, CALIF.
Tactile sensing means for prosthetic limbs
[NASA-CASE-MFS-16570-1] c05 N73-32013
NORTH CAROLINA STATE UNIV., RALEIGH.
Thermal shock resistant hafnia ceramic material
[NASA-CASE-LAR-10894-1] c18 N73-14584
Thermal shock and erosion resistant tantalum
carbide ceramic material
[NASA-CASE-LAR-11902-1] c27 N78-17206
NORTHEASTERN UNIV., BOSTON, MASS.
Pulse-width modulation multiplier Patent
[NASA-CASE-XER-09213] c07 N71-12390
NORTHROP CORP., BANTHOBNE, CALIF.
Shock tube bypass piston tunnel
[NASA-CASE-NPO-12109] c11 N72-22245
Folding structure fabricated of rigid panels
[NASA-CASE-IMP-02146] c18 N75-27040
NORTHROP NORTHROPICS, PALOS VERDES PENINSULA, CALIF.
Method of making dry electrodes
[NASA-CASE-FRC-10029-2] c05 N72-25121
Valve seat
[NASA-CASE-NPO-10606] c15 N72-25451
NORTHROP SPACE LABS., BANTHOBNE, CALIF.
Method of evaluating moisture barrier properties
of encapsulating materials Patent
[NASA-CASE-NPO-10051] c18 N71-24934
NORTHROPICS, PALOS VERDES PENINSULA, CALIF.
Flexible conductive disc electrode Patent
[NASA-CASE-FRC-10029] c09 N71-24618
Gas low pressure low flow rate metering system
Patent
[NASA-CASE-FRC-10022] c12 N71-26546
Method of removing insulated material from
insulated wires
[NASA-CASE-FRC-10038] c15 N72-20444
NOTRE DAME UNIV., IND.
Synthesis of polymeric schiff bases by
schiff-base exchange reactions Patent
[NASA-CASE-IMP-08651] c06 N71-11236
Direct synthesis of polymeric schiff bases from
two amines and two aldehydes Patent

[NASA-CASE-IMP-08655] c06 N71-11239
Azine polymers and process for preparing the
same Patent
[NASA-CASE-IMP-08656] c06 N71-11242
Synthesis of polymeric schiff bases by reaction
of acetals and amine compounds Patent
[NASA-CASE-IMP-08652] c06 N71-11243
Aromatic diamine-aromatic dialdehyde high
molecular weight schiff base polymers prepared
in a monofunctional schiff base Patent
[NASA-CASE-IMP-03074] c06 N71-24740

O

OAKLAND UNIV., ROCHESTER, MICH.
Optical process for producing classification
maps from multispectral data
[NASA-CASE-MSC-14472-1] c43 N77-10584
An interactive color display for multispectral
imagery using correlation clustering
[NASA-CASE-MSC-16253-1] c43 N77-31583
OHIO STATE UNIV., COLUMBUS.
Horn antenna having V-shaped corrugated slots
[NASA-CASE-LAR-11112-1] c32 N76-15330
OLD DOMINION UNIV., NORFOLK, VA.
Instrumentation for measuring aircraft noise and
sonic boom
[NASA-CASE-LAR-11476-1] c07 N76-27232
Differential sound level meter
[NASA-CASE-LAR-12106-1] c71 N78-14867
ORGANON DIAGNOSTICS, EL MONTE, CALIF.
Water system virus detection
[NASA-CASE-MSC-16098-1] c51 N77-24755

P

PACKARD-BELL ELECTRONICS CORP., NEWBURY PARK, CALIF.
Optical alignment system Patent
[NASA-CASE-IMP-02029] c14 N70-41955
PANAMORA CORP., PENNSAUKEN, N. J.
Method of forming transparent films of ZnO
[NASA-CASE-FRC-10019] c15 N73-12487
PENINSULAR CHEMRESEARCH, INC., GAINESVILLE, FLA.
Hydroxy terminated perfluoro ethers Patent
[NASA-CASE-NPO-10768] c06 N71-27254
Perfluoro polyether acyl fluorides
[NASA-CASE-NPO-10765] c06 N72-20121
Polyurethane resins from hydroxy terminated
perfluoro ethers
[NASA-CASE-NPO-10768-2] c06 N72-27144
Highly fluorinated polyurethanes
[NASA-CASE-NPO-10767-2] c06 N72-27151
Highly fluorinated polyurethanes
[NASA-CASE-NPO-10767-1] c06 N73-33076
PHILCO-FORD CORP., HOUSTON, TEX.
Frequency modulation demodulator threshold
extension device Patent
[NASA-CASE-MSC-12165-1] c07 N71-33696
PHILCO-FORD CORP., NEWPORT BEACH, CALIF.
Mechanically extendible telescoping boom
[NASA-CASE-NPO-11118] c03 N72-25021
PHILCO-FORD CORP., PALO ALTO, CALIF.
Composite antenna feed
[NASA-CASE-GSC-11046-1] c07 N73-28013
Amplitude steered array
[NASA-CASE-GSC-11446-1] c33 N74-20860
PITTSBURGH UNIV., PA.
Device for the detection of phenol and related
compounds
[NASA-CASE-LEW-12513-1] c25 N77-18238
PRATT AND WHITNEY AIRCRAFT, EAST HARTFORD, CONN.
Liquid-gas separation system Patent
[NASA-CASE-XMS-01624] c15 N70-40062
Vibration damping system Patent
[NASA-CASE-XMS-01620] c23 N71-15673
Vapor pressure measuring system and method Patent
[NASA-CASE-XMS-01618] c14 N71-20741
Sealing member and combination thereof and
method of producing said sealing member Patent
[NASA-CASE-XMS-01625] c15 N71-23022

Q

QUANTUM DYNAMICS, TARRANA, CALIF.
Respiratory analysis system and method
[NASA-CASE-MSC-13436-1] c05 N73-32015

R

RADIATION, INC., MELBOURNE, FLA.

Remote platform power conserving system
[NASA-CASE-GSC-11182-1] c15 N75-13007

RADIATION INSTRUMENT DEVELOPMENT LAB., INC.,
MELROSE PARK, ILL.
High speed binary to decimal conversion system
Patent
[NASA-CASE-XGS-01230] c08 N71-19544

RADIATION SYSTEMS, INC., MCLEAN, VA.
Monopulse tracking system Patent
[NASA-CASE-XGS-01155] c10 N71-21483

RADIO CORP. OF AMERICA, LANCASTER, PA.
Bonding graphite with fused silver chloride
[NASA-CASE-XGS-00963] c15 N69-39735

RADIO CORP. OF AMERICA, NEW YORK.
Water cooled contactor for anode in carbon arc
mechanism
[NASA-CASE-XMS-03700] c15 N69-24266

Apparatus for ballasting high frequency
transistors
[NASA-CASE-XGS-05003] c09 N69-24318

Helical coaxial resonator RF filter
[NASA-CASE-XGS-02816] c07 N69-24323

Radiation resistant silicon semiconductor
devices Patent
[NASA-CASE-XGS-07801] c09 N71-12513

GaAs solar detector using manganese as a doping
agent Patent
[NASA-CASE-XNP-01328] c26 N71-18064

Thermocouple assembly Patent
[NASA-CASE-XNP-01659] c14 N71-23039

Method of erasing target material of a vidicon
tube or the like Patent
[NASA-CASE-XNP-06028] c09 N71-23189

Transient augmentation circuit for pulse
amplifiers Patent
[NASA-CASE-XNP-01068] c10 N71-28739

RADIO CORP. OF AMERICA, PRINCETON, N. J.
Connector strips-positive, negative and T tabs
[NASA-CASE-XGS-01395] c03 N69-21539

Solar cell including second surface mirrors Patent
[NASA-CASE-NPO-10109] c03 N71-11049

Collapsible reflector Patent
[NASA-CASE-XMS-03454] c09 N71-20658

Simple method of making photovoltaic
junctions Patent
[NASA-CASE-XNP-01960] c09 N71-23027

Method of electrolytically binding a layer of
semiconductors together Patent
[NASA-CASE-XNP-01959] c26 N71-23043

Method and apparatus for distillation of liquids
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[NASA-CASE-XNP-08124] c15 N71-27184

Maximum power point tracker Patent
[NASA-CASE-GSC-10376-1] c14 N71-27407

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deposited gallium arsenide by the introduction
of water into the vapor deposition atmosphere
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[NASA-CASE-XNP-01961] c26 N71-29156

Radial heat flux transformer
[NASA-CASE-NPO-10828] c33 N72-17948

Target acquisition antenna
[NASA-CASE-GSC-10064-1] c10 N72-22235

Method for distillation of liquids
[NASA-CASE-XNP-08124-2] c06 N73-13129

Hermetically sealed semiconductor
[NASA-CASE-GSC-10791-1] c15 N73-14469

Thermal flux transfer system
[NASA-CASE-NPO-12070-1] c28 N73-32606

Rotary solenoid shutter drive assembly and
rotary inertia damper and stop plate assembly
[NASA-CASE-GSC-11560-1] c33 N74-20861

Frequency measurement by coincidence
detection with standard frequency
[NASA-CASE-MSC-14649-1] c33 N76-16331

RAND CORP., SANTA MONICA, CALIF.
Satellite communication system Patent
[NASA-CASE-XNP-02389] c07 N71-28900

RAYMOND ENGINEERING LAB., INC., MIDDLETOWN, CONN.
Synchronous servo loop control system Patent
[NASA-CASE-XNP-03744] c10 N71-20448

RAYTHEON CO., SUDBURY, MASS.
Laser Doppler system for measuring three
dimensional vector velocity Patent
[NASA-CASE-NFS-20386] c21 N71-19212

Clear air turbulence detector
[NASA-CASE-NFS-21244-1] c36 N75-15028

RCA SERVICE CO., INC., CAMDEN, N. J.
Apparatus for inspecting microfilm Patent
[NASA-CASE-NFS-20240] c14 N71-26788

RENSSELAER POLYTECHNIC INST., TROY, N. Y.
Coincidence apparatus for detecting particles
[NASA-CASE-XLA-07813] c14 N72-17328

RESEARCH TRIANGLE INST., DURHAM, N. C.
Semiconductor p-n junction stress and strain
sensor
[NASA-CASE-XLA-04980] c09 N69-27422

ROCHESTER UNIV., N. Y.
Concave grating spectrometer Patent
[NASA-CASE-XGS-01036] c14 N70-40003

ROCKETDYNE, CANOGA PARK, CALIF.
Frequency to analog converter Patent
[NASA-CASE-XNP-07040] c08 N71-12500

Load cell protection device Patent
[NASA-CASE-XMS-06782] c32 N71-15974

Thermobulb mount Patent
[NASA-CASE-NPO-10158] c33 N71-16356

Laminar flow enhancement Patent
[NASA-CASE-NPO-10122] c12 N71-17631

Temperature sensitive flow regulator Patent
[NASA-CASE-NFS-14259] c15 N71-19213

Hydrogen leak detection device Patent
[NASA-CASE-NFS-11537] c14 N71-20442

Technique of elbow bending small jacketed
transfer lines Patent
[NASA-CASE-XNP-10475] c15 N71-24679

Gas liquefaction and dispensing apparatus Patent
[NASA-CASE-NPO-10070] c15 N71-27372

Locking device for turbine rotor blades Patent
[NASA-CASE-XNP-00816] c28 N71-28928

Laser camera and diffusion filter therefore Patent
[NASA-CASE-NPO-10417] c16 N71-33410

Hydrazinium nitroformate propellant stabilized
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saturated polymeric hydrocarbon binder
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[NASA-CASE-NPO-10998-1] c06 N73-32029

Internally supported flexible duct joint
[NASA-CASE-NFS-19193-1] c37 N75-19686

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Thrust measurement
[NASA-CASE-XMS-05731] c35 N75-29382

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[NASA-CASE-NFS-19220-1] c20 N76-22296

ROCKWELL INTERNATIONAL CORP., CANOGA PARK, CALIF.
Brazing alloy binder
[NASA-CASE-XNP-05868] c26 N75-27125

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Brazing alloy
[NASA-CASE-XNP-03878] c26 N75-27127

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Externally supported internally stabilized
flexible duct joint
[NASA-CASE-NFS-19194-1] c37 N76-14460

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Laser extensometer
[NASA-CASE-NFS-19259-1] c36 N78-14380

ROCKWELL INTERNATIONAL CORP., DOWNNEY, CALIF.
Insulation for piping
[NASA-CASE-MSC-19523-1] c31 N76-16245

Apparatus for positioning modular components on
a vertical or overhead surface
[NASA-CASE-LAR-11465-1] c37 N76-21554

Flexible pile thermal barrier seal
[NASA-CASE-MSC-19568-1] c37 N76-23585

Method of producing complex aluminum alloy parts
of high temper, and products thereof
[NASA-CASE-MSC-19693-1] c26 N76-29401

Flanged major modular assembly jig
[NASA-CASE-MSC-19372-1] c39 N76-31562

Aircraft-mounted crash-activated transmitter
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[NASA-CASE-NFS-16609-3] c03 N76-32140

Window defect planar mapping technique
[NASA-CASE-MSC-19442-1] c74 N77-10899

Multi-purpose wind tunnel reaction control model block
[NASA-CASE-MSC-19706-1] c09 N77-19077
Sequencing device utilizing planetary gear set
[NASA-CASE-MSC-19514-1] c37 N77-19459
Mechanical sequencer
[NASA-CASE-MSC-19536-1] c37 N77-22482
Non-floating universal joint
[NASA-CASE-MSC-19546-1] c37 N77-25536
Load regulating latch
[NASA-CASE-MSC-19535-1] c37 N77-32499
Variable contour securing system
[NASA-CASE-MSC-16270-1] c35 N78-10434
Adjustable securing base
[NASA-CASE-MSC-19666-1] c37 N78-17383
ROPH CORP., CHULA VISTA, CALIF.
Method of forming shapes from planar sheets of thermosetting materials
[NASA-CASE-NPO-11036] c15 N72-24522
ROYAL AIRCRAFT ESTABLISHMENT, FARNBOROUGH (ENGLAND).
Garments for controlling the temperature of the body Patent
[NASA-CASE-XMS-10269] c05 N71-24147
RYAN AERONAUTICAL CO., SAN DIEGO, CALIF.
Wing deployment method and apparatus Patent
[NASA-CASE-XMS-00907] c02 N70-41630
Masking device Patent
[NASA-CASE-XNP-02092] c15 N70-42033

S

SANDERS ASSOCIATES, INC., WASHUA, N. H.
Increasing efficiency of switching type regulator circuits Patent
[NASA-CASE-XMS-09352] c09 N71-23316
SANTA BARBARA RESEARCH CENTER, GOLETA, CALIF.
Camera arrangement
[NASA-CASE-GSC-12032-2] c35 N76-19408
SANTA CLARA UNIV., CALIF.
Reversed cowl flap inlet thrust augmentor
[NASA-CASE-ARC-10754-1] c07 N75-24736
Noise suppressor for turbo fan jet engines
[NASA-CASE-ARC-10812-1] c07 N76-18131
System for measuring Reynolds in a turbulently flowing fluid
[NASA-CASE-ARC-10755-2] c34 N76-27517
System for measuring three fluctuating velocity components in a turbulently flowing fluid
[NASA-CASE-ARC-10974-1] c34 N77-27345
SCHJELDHAL (G. T.) CO., NORTHFIELD, MINN.
Rotating mandrel for assembly of inflatable devices Patent
[NASA-CASE-XLA-04143] c15 N71-17687
Traveling sealer for contoured table Patent
[NASA-CASE-XLA-01494] c15 N71-24164
SCIENCE APPLICATIONS, INC., LA JOLLA, CALIF.
Process for producing flame resistant polyamides and products produced thereby
[NASA-CASE-MSC-16074-1] c27 N77-14262
SCOTT AVIATION CORP., LANCASTER, N. Y.
Self-contained breathing apparatus
[NASA-CASE-MSC-14733-1] c54 N76-24900
SERV-AIR, INC., HOUSTON, TEX.
Stator rotor tools
[NASA-CASE-MSC-16000-1] c07 N77-13062
SIBORSKY AIRCRAFT, STRATFORD, CONN.
Automatically lockable axially extensible strut
[NASA-CASE-LAR-11900-1] c05 N77-18134
SINGER-GENERAL PRECISION, INC., BINGHAMTON, N. Y.
CRT blanking and brightness control circuit
[NASA-CASE-KSC-10647-1] c10 N72-31273
SMITH ELECTRONICS, INC., CLEVELAND, OHIO.
Phase detector assembly Patent
[NASA-CASE-XNP-00701] c09 N70-40272
SMITHSONIAN ASTROPHYSICAL OBSERVATORY, CAMBRIDGE, MASS.
Atomic hydrogen maser with bulb temperature control to remove wall shift in maser output frequency
[NASA-CASE-HQN-10654-1] c16 N73-13489
Tunable cavity resonator with ramp shaped supports
[NASA-CASE-HQN-10790-1] c36 N74-11313
SOLID STATE RADIATIONS, INC., LOS ANGELES, CALIF.
Biomedical radiation detecting probe Patent
[NASA-CASE-XMS-01177] c05 N71-19440
SOUTHERN METHODIST UNIV., DALLAS, TEX.
Growth of gallium nitride crystals
[NASA-CASE-LAR-11302-1] c25 N75-13054

Improved low cost substrates for polycrystalline solar cells
[NASA-CASE-GSC-12022-2] c44 N76-26695
SPACE SCIENCES, INC., WALTHAM, MASS.
Doppler shift system
[NASA-CASE-HQN-10740-1] c72 N74-19310
SPACE TECHNOLOGY LABS., INC., REDONDO BEACH, CALIF.
Method and apparatus for measuring potentials in plasmas Patent
[NASA-CASE-XLE-00821] c25 N71-15650
AC logic flip-flop circuits Patent
[NASA-CASE-XGS-00823] c10 N71-15910
Apparatus for field strength measurement of a space vehicle Patent
[NASA-CASE-XLE-00820] c14 N71-16014
Hermetically sealed explosive release mechanism Patent
[NASA-CASE-XGS-00824] c15 N71-16078
Apparatus for measuring electric field strength on the surface of a model vehicle Patent
[NASA-CASE-XLE-02038] c09 N71-16086
Solar cell mounting Patent
[NASA-CASE-XNP-00826] c03 N71-20895
Prestressed refractory structure Patent
[NASA-CASE-XNP-02888] c18 N71-21068
Linear accelerator frequency control system Patent
[NASA-CASE-XGS-05441] c10 N71-22962
Fluid lubricant system Patent
[NASA-CASE-XNP-03972] c15 N71-23048
Compensating bandwidth switching transients in an amplifier circuit Patent
[NASA-CASE-XNP-01107] c10 N71-28859
SPACELABS, INC., VAN HUIS, CALIF.
Peak polarity selector Patent
[NASA-CASE-FRC-10010] c10 N71-24862
Respiration monitor
[NASA-CASE-FRC-10012] c14 N72-17329
SPACO, INC., HUNTSVILLE, ALA.
Sight switch using an infrared source and sensor Patent
[NASA-CASE-XNP-03934] c09 N71-22985
Method and device for detecting voids in low density material Patent
[NASA-CASE-HPS-20044] c14 N71-28993
SPECTRA-PHYSICS, INC., MOUNTAIN VIEW, CALIF.
Optically pumped resonance magnetometer for determining vectoral components in a spatial coordinate system Patent
[NASA-CASE-XGS-04879] c14 N71-20428
SPECTROLAB, INC., SYLMAR, CALIF.
Ultraviolet filter
[NASA-CASE-XNP-02340] c23 N69-24332
Central spar and module joint Patent
[NASA-CASE-XNP-02341] c15 N71-21531
Apparatus for applying cover slides
[NASA-CASE-NPO-10575] c03 N72-25019
SPERRY GYROSCOPE CO., GREAT NECK, N. Y.
Automatic gain control system
[NASA-CASE-XMS-05307] c09 N69-24330
SPERRY RAND CORP., BLUE BELL, PA.
Flipflop interrogator and bi-polar current driver Patent
[NASA-CASE-XGS-03058] c10 N71-19547
SPERRY RAND CORP., HUNTSVILLE, ALA.
Optical tracking mount Patent
[NASA-CASE-HPS-14017] c14 N71-26627
Collapsible antenna boom and transmission line Patent
[NASA-CASE-HPS-20068] c07 N71-27191
Device for handling printed circuit cards Patent
[NASA-CASE-HPS-20453] c15 N71-29133
(Frequency division multiplex technique
[NASA-CASE-KSC-10521] c07 N73-20176
Device for configuring multiple leads
[NASA-CASE-HPS-22133-1] c33 N74-26977
System for enhancing tool-exchange capabilities of a portable wrench
[NASA-CASE-HPS-22283-1] c37 N75-33395
Remotely operable articulated manipulator
[NASA-CASE-HPS-22707-1] c37 N76-15457
FM/CW radar system
[NASA-CASE-HPS-22234-1] c32 N76-33364
Photovoltaic cell array
[NASA-CASE-HPS-22458-1] c44 N77-10635
Notch filter
[NASA-CASE-HPS-23303-1] c32 N77-18307
Three-mirror telescope
[NASA-CASE-HPS-23675-1] c74 N77-28937

SPERRY RAND CORP., PHOENIX, ARIZ.
Isolation coupling arrangement for a torque measuring system
[NASA-CASE-XLA-04897] c15 N72-22482

STANFORD RESEARCH INST., MENLO PARK, CALIF.
Automatic fault correction system for parallel signal channels Patent
[NASA-CASE-XNP-03263] c09 N71-18843
Mercury capillary interrupter Patent
[NASA-CASE-XNP-02251] c12 N71-20896
Magnetic power switch Patent
[NASA-CASE-NPO-10242] c09 N71-24803
Procedure and apparatus for determination of water in nitrogen tetroxide
[NASA-CASE-NPO-10234] c06 N72-17094
Preparation of heterocyclic block copolymer from perfluoroalkylene oxide alpha, omega-diaidoximes
[NASA-CASE-ARC-11060-1] c27 N78-10292

STANFORD UNIV., CALIF.
Active RC networks
[NASA-CASE-ARC-10042-2] c10 N72-11256
Multiloop RC active filter apparatus having low parameter sensitivity with low amplifier gain
[NASA-CASE-ARC-10192] c09 N72-21245
Spacecraft attitude control method and apparatus
[NASA-CASE-HQN-10439] c21 N72-21624
Laser system with an antiresonant optical ring
[NASA-CASE-HQN-10844-1] c36 N75-19653
Traveling wave solid state amplifier utilizing a semiconductor with negative differential mobility
[NASA-CASE-HQN-10069] c33 N75-27251
An improved controller arm for a remotely related slave arm
[NASA-CASE-ARC-11052-1] c54 N77-30751

STANFORD UNIV., PALO ALTO, CALIF.
RC networks and amplifiers employing the same
[NASA-CASE-IAC-05462-2] c10 N72-17171

STATE UNIV. OF IOWA, IOWA CITY.
Mixture separation cell Patent
[NASA-CASE-XNS-02952] c18 N71-20742

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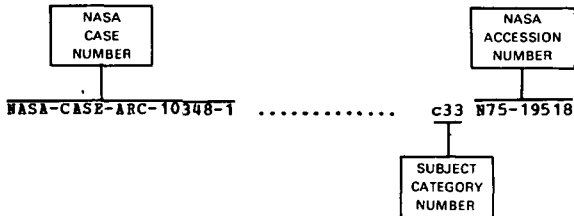
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US-PATENT-3,295,782	c14	N70-41647	US-PATENT-3,321,157	c02	N70-42016
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US-PATENT-3,295,798	c02	N70-41589	US-PATENT-3,321,570	c15	N70-41960
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US-PATENT-3,416,939	c18	W71-24183	US-PATENT-3,430,115	c09	W69-24318
US-PATENT-3,416,975	c17	W71-23828	US-PATENT-3,430,131	c24	W71-20518
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US-PATENT-3,702,575		c15	N73-13466	US-PATENT-3,735,591		c25	N73-25760
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US-PATENT-313-204	C28 N73-24783	

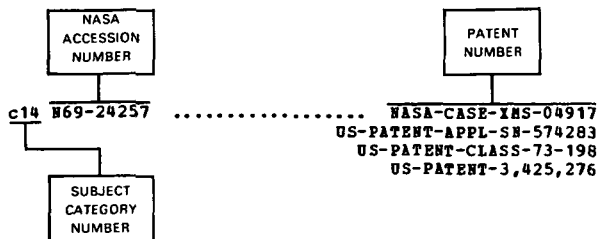
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US-PATENT-CLASS-128-2.08
US-PATENT-3,420,225

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		US-PATENT-CLASS-60-263
		US-PATENT-3,443,384
c07	N71-24583	NASA-CASE-NPO-10096
		US-PATENT-APPL-SN-730700
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		US-PATENT-3,533,001
c09	N71-24595	NASA-CASE-GSC-10021-1
		US-PATENT-APPL-SN-790420
		US-PATENT-CLASS-343-7.5
		US-PATENT-3,540,045
c09	N71-24596	NASA-CASE-IXE-01306-2
		US-PATENT-APPL-SN-684083
		US-PATENT-CLASS-328-133
		US-PATENT-3,509,475
c09	N71-24597	NASA-CASE-ARC-10132-1
		US-PATENT-APPL-SN-759460
		US-PATENT-CLASS-73-398
		US-PATENT-3,545,275
c15	N71-24599	NASA-CASE-NSC-12052-1
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		US-PATENT-CLASS-254-150
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c15	N71-24600	NASA-CASE-XGS-08718
		US-PATENT-APPL-SN-785611
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		US-PATENT-3,540,676
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		US-PATENT-APPL-SN-557861
		US-PATENT-CLASS-320-17
		US-PATENT-3,413,536
c05	N71-24606	NASA-CASE-XKS-10804
		US-PATENT-APPL-SN-691909
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		US-PATENT-3,508,347
c06	N71-24607	NASA-CASE-IXP-09699
		US-PATENT-APPL-SN-711972
		US-PATENT-CLASS-73-17
		US-PATENT-3,546,920
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		US-PATENT-3,470,318
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		US-PATENT-APPL-SN-805406
		US-PATENT-CLASS-325-325
		US-PATENT-3,551,816
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		US-PATENT-APPL-SN-666555
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		US-PATENT-3,540,056
c09	N71-24618	NASA-CASE-FRC-10029
		US-PATENT-APPL-SN-760389
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		US-PATENT-3,547,105
c07	N71-24621	NASA-CASE-GSC-10118-1
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c07 N71-24625	US-PATENT-CLASS-340-172.5	US-PATENT-CLASS-235-152
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	US-PATENT-CLASS-75-128T		US-PATENT-CLASS-119-72.5
	US-PATENT-4,055,416		US-PATENT-CLASS-137-624.11
c26 N78-18183	NASA-CASE-LRW-12905-1		US-PATENT-4,055,147
	US-PATENT-APPL-SN-684171	c37 N78-19515	NASA-CASE-GSC-12297-1
	US-PATENT-CLASS-75-170		US-PATENT-APPL-SN-880838
	US-PATENT-CLASS-148-32	c44 N78-19599	NASA-CASE-LRW-12159-1
	US-PATENT-CLASS-148-32.5		US-PATENT-APPL-SN-643041
	US-PATENT-4,055,447		US-PATENT-CLASS-126-270
c31 N78-18253	NASA-CASE-NPO-14383-1		US-PATENT-CLASS-427-160
	US-PATENT-APPL-SN-873993		US-PATENT-CLASS-428-652
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	US-PATENT-APPL-SN-858767		US-PATENT-CLASS-428-679
c33 N78-18308	NASA-CASE-FRC-10090-1		US-PATENT-4,055,707
	US-PATENT-APPL-SN-737974	c44 N78-19608	NASA-CASE-NPO-14100-1
	US-PATENT-CLASS-307-265		US-PATENT-APPL-SN-861391
	US-PATENT-CLASS-307-350	c44 N78-19609	NASA-CASE-NPO-14068-1
	US-PATENT-CLASS-307-360		US-PATENT-APPL-SN-858769
	US-PATENT-CLASS-328-150	c54 N78-19773	NASA-CASE-MFS-23692-1
	US-PATENT-4,055,777		US-PATENT-APPL-SN-885061
c33 N78-18313	NASA-CASE-GSC-12171-1	c71 N78-19898	NASA-CASE-NPO-14134-1
	US-PATENT-APPL-SN-878542		US-PATENT-APPL-SN-861392
c34 N78-18355	NASA-CASE-LRW-12554-1	c72 N78-19907	NASA-CASE-LRW-12081-2
	US-PATENT-APPL-SN-686449		US-PATENT-APPL-SN-837794
	US-PATENT-CLASS-427-34	c73 N78-19920	NASA-CASE-HQN-10841-1
	US-PATENT-CLASS-427-405		US-PATENT-APPL-SN-560891
	US-PATENT-CLASS-427-419A		US-PATENT-CLASS-176-39
	US-PATENT-CLASS-427-423		US-PATENT-CLASS-330-4.3
	US-PATENT-CLASS-428-633		US-PATENT-4,075,057
	US-PATENT-CLASS-428-652		
	US-PATENT-CLASS-428-667		
	US-PATENT-4,055,705		
c35 N78-18390	NASA-CASE-MFS-23008-1		
	US-PATENT-APPL-SN-665734		
	US-PATENT-CLASS-73-DIG.11		
	US-PATENT-CLASS-73-28		
	US-PATENT-CLASS-73-432PS		
	US-PATENT-CLASS-73-432R		
	US-PATENT-4,055,089		
c35 N78-18391	NASA-CASE-NPO-13687-1		
	US-PATENT-APPL-SN-641803		
	US-PATENT-CLASS-356-106S		
	US-PATENT-CLASS-356-110		
	US-PATENT-4,053,231		
c35 N78-18393	NASA-CASE-FRC-10093-1		
	US-PATENT-APPL-SN-878539		
c35 N78-18394	NASA-CASE-LAR-11999-1		
	US-PATENT-APPL-SN-876299		
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	US-PATENT-APPL-SN-858596		
c35 N78-18396	NASA-CASE-NPO-14174-1		
	US-PATENT-APPL-SN-876441		
c36 N78-18410	NASA-CASE-NPO-13801-1		
	US-PATENT-APPL-SN-708796		
	US-PATENT-CLASS-330-4		
	US-PATENT-CLASS-332-7.5		
	US-PATENT-4,055,810		
c51 N78-18674	NASA-CASE-HSC-16260-1		
	US-PATENT-APPL-SN-876440		
c54 N78-18761	NASA-CASE-HSC-10954-1		
	US-PATENT-APPL-SN-529884		

☆US GOVERNMENT PRINTING OFFICE 1978-735-078/22

1 Report No NASA SP-7039 (13)	2. Government Accession No.	3. Recipient's Catalog No	
4 Title and Subtitle NASA PATENT ABSTRACTS BIBLIOGRAPHY A Continuing Bibliography (Supplement 13)		5 Report Date July 1978	
		6 Performing Organization Code	
7 Author(s)		8 Performing Organization Report No	
		10 Work Unit No	
9 Performing Organization Name and Address National Aeronautics and Space Administration Washington, D. C. 20546		11 Contract or Grant No	
		13. Type of Report and Period Covered	
12 Sponsoring Agency Name and Address		14 Sponsoring Agency Code	
15 Supplementary Notes Section 2 - Indexes			
16 Abstract This bibliography is issued in two sections: Section 1 - Abstracts, and Section 2 - Indexes. This issue of the Abstract Section cites 161 patents and applications for patent introduced into the NASA scientific and technical information system during the period January 1978 through June 1978. Each entry in the Abstract Section consists of a citation, an abstract, and in most cases, a key illustration selected from the patent or application for patent. This issue of the Index Section contains entries for 3386 patent and application for patent citations covering the period May 1969 through June 1978. The Index Section contains five indexes --- subject, inventor, source, number, and accession number.			
17. Key Words (Suggested by Author(s)) Bibliographies Inventions NASA Programs Patents		18 Distribution Statement Unclassified - Unlimited	
19 Security Classif. (of this report) Unclassified	20 Security Classif (of this page) Unclassified	21 No. of Pages 590	22. Price* \$10.50 HC

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